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ORIGINAL COMMUNICATIONS.

Lectures on Scarlet Fever. By Caspar Morris, M. D., late Lecturer on Practical Medicine in the Philadelphia Medical Institute.

Lecture IX.

We now come to the consideration of the treatment of those diseased conditions which are commonly recognized as the *sequelæ* of scarlet fever, though they may perhaps be considered, with greater propriety, a mere continuance of the diseased action caused by the specific poison.

You will remember that I described them as the consequences of the primary disease, and spoke of them as susceptible of division into two classes. Those which appear to be the mere continuation of the local lesions developed during the progress of the disease itself, ulceration of the throat, enlargement of the cervical glands, with infiltration of the cellular tissue of the adjacent parts, abscesses about the neck, and inflammation of the ear, were grouped together as the first class: while

the inflammation of the endocardium, or of the kidneys, and the dropsical effusion and rheumatic fever, were arranged as the second, and an attempt was made to exhibit the connection of the dropsical effusion with the interruption of the functions of the emunctories of the skin and kidneys. This division was not adopted without design, and has reference to the treatment appropriate to the several groups.

The ulceration of the throat requires no change in the treatment which has already been suggested as appropriate to the anginose symptoms during the primary stage. The lime water, solution of chloride of soda, sulphate of copper or nitrate of silver, may be injected as detergent and stimulating applications for the cure of the internal affections, should they not subside spontaneously with the decline of the fever: while fomentations are still applied to the external swellings. If suppuration occur, the abscesses should be discharged so soon as the matter approaches near enough to the surface to permit the safe resort to the lancet.

The affections of the ear which complicate scarlet fever in its progress, or are developed as sequelæ, should always receive prompt attention, as they not unfrequently result in the entire destruction of the diseased organ. There may be *otitis* or acute inflammation, or mere *otorrhœa*. The least important cases are those in which the inflammation commences in the meatus auditorius externus. This may occur at any time during the progress of the disease, but most commonly commences about the fourth or fifth day. If the patient be a young child, it will be found more drowsy than usual, and when awake, more fretful; and if old enough to express the seat of distress, it will indicate one or both ears. In some cases, however, there is little or no pain, and the first intimation of any local lesion will be derived from the stain of the cap, or pillow-case, by a glairy, purulent discharge, which excoriates the concha as it flows over it, and occasions a vesicular eruption wherever it touches the skin. Whether the accumulation of this matter in the ear produces an extension of the disease to the tympanum, or the membrana tympani itself takes on the inflammatory action, it not unfrequently happens that even those cases which are attended by little or no suffering in the beginning, become very

serious in their progress, and result, finally, in the destruction of the membrana tympani and discharge of the ossicula.

During the first few days, the external meatus should be kept perfectly cleansed by the injection of simple warm water with a little pure castile soap dissolved in it; after which, if the discharge still continue and become fœtid, the weak solution of chloride of soda, or sulphate of copper may be employed.

The injection of the ear should never be entrusted to the mother or nurse. Ignorant of the structure of the parts, they are either restrained from the effectual use of the remedy by apprehension of doing mischief, or employ an undue force and injure the inflamed membrane. Where the ulcerative process has destroyed the membrana tympani, especially, great care is requisite not to throw the fluid so far into the cavity that it shall lodge there and become a source of additional irritation.

Even the cases which originate externally, sometimes result in the entire destruction of the ear; but where the inflammation is extended from the fauces through the eustachian tube to the internal ear, the pain at the time of invasion is much more severe, and the consequences are much more serious. In the case of infants or young children, this internal affection is first manifested by sudden shrieks, like those of meningitis, accompanied by grinding of the teeth and violent febrile excitement; these symptoms may continue many days before any discharge from the external ear affords positive evidence of the site of the inflammation. These are the cases which result, of necessity, in the destruction of the organ, and lay the foundation for necrosis of the petrous portion of the temporal bone, and occasionally give rise to inflammation of the dura mater and death. It is not at all uncommon for the matter to find its way into the mastoid cells, and to give rise to abscesses behind the ear, which discharge externally; and leave openings, through which pus, contaminated by the dead bone, is discharged during a series of years; making the patient an object of disgust and pity by the excessive fetor. I have known both ears thus destroyed, reducing the child to the condition of a mute.

This extension of the inflammation from the fauces to the ear, may occur at any period; either during the progress of the scarlet fever, or after the primary symptoms have declined. In either case, it demands prompt and energetic treatment; and unless the

prostration of the vital forces is so extreme as to render the recovery of the patient hopeless, *leeches* should be applied to the mastoid process, followed by a blister. No apprehension of sloughing or ulceration should be allowed to interfere. The introduction of warm olive oil and laudanum into the ear may be resorted to for the temporary relief of the suffering, simultaneously with these applications; and morphia may be applied afterward to the blistered surface, in doses appropriate to the age of the patient.

Croup, when it occurs as a complication during the first week of the disease, should be treated by emetics of alum or sulphate of zinc. Should it be developed during the convalescence, the disease of the larynx will partake of the character of that of the adjacent parts, and if that be one of active inflammation, leeching may be safely resorted to; the quantity of blood drawn being regulated by the degree of reaction which is present. Cases of this kind form the connecting link between the first class of sequelæ and the second; to the consideration of which I shall next invite your attention.

In taking leave of the primary stage of the disease, and the local affections associated with, or immediately dependent upon it, we encounter an entirely new condition of the system, one of active inflammation.

You will remember that the *malignant* form of scarlet fever is less likely to be followed by those sequelæ which I have grouped together as the second class, than the *simple* and *anginose*. Though in the former, the powers of the system may be so far exhausted that it is long in recovering its healthy tone, and the convalescence may be protracted to many weeks, and rendered more tedious by the condition of the throat or ears, there appears to be little or no tendency to the secondary inflammations or dropsical effusions which so frequently follow even the mildest cases of the latter. These sequelæ are always of an inflammatory character, and in severe cases the safety of the patient depends upon the promptitude and vigor with which depletion is practised. They most frequently occur, you will remember, between the 10th and 20th day from the development of the primary symptoms, and are all of them ushered in by loss of appetite, languor, and, in cases of children, fretfulness; and are generally excited, as you will re

member, by errors in diet or exposure to vicissitudes of temperature, though they occur without such exciting cause with sufficient frequency to justify the suspicion that they are, in reality, dependent on the original influence of the miasm which gives rise to the disease of which they would then be merely the latter stage, rather than a sequela. They are all accompanied by a dry, heated, condition of the skin; a suspension or great diminution of the secretion from the kidneys; a tense and rapid pulse.

The endocardial inflammation, though not the most common, is the most formidable of these sequelæ, and may be recognized by the extreme rapidity of the pulse, the disposition to sigh, and especially the pain in the region of the heart. I have already indicated the plan of treatment which I think adapted to this case, when I alluded to it in the description of the disease. A decided and immediate impression should be produced by free venesection; a full dose of calomel should be given, followed by oil, or citrate of magnesia; a blister should be applied over the region of the heart; the diet should be restricted to barley or rice water; the most positive quiet should be maintained; and if the febrile reaction be not subdued by these means, and the strength of the patient admit it, leeches or cups should be applied between the lower angle of the scapula of the left side and the vertebræ. Having by these means subdued the active phlogosis, the patient must be kept in a state of perfect tranquillity of mind and body, and on the most rigid diet, till all symptoms of active inflammation are subdued.

The dropsical effusion and the inflammation of the kidneys may be spoken of under one head, since they are at least intimately associated, and demand the same treatment, even if the former do not generally depend on the latter as the proximate cause, which I believe to be the true pathology of such cases. Where the affection is slight and the febrile reaction mild, a dose of calomel followed by a saline cathartic, will often suffice to subdue the inflammation and arrest the progress of the effusion. Should the skin continue dry and husky, the tongue coated, the pulse quick and corded, great advantage may be expected from the use of the solution of citrate of potash or the effervescing draught with sweet spirits of nitre; and these failing

to give relief, the nitrate of potash with antimony and small doses of calomel may be resorted to. If the fever be high and constant, bleeding will be not only well born, but absolutely requisite. The blood drawn under these circumstances is always much cupped, and covered with a dense buffy coat, and the relief which follows the abstraction of it is very great; I have known the most urgent symptoms yield immediately. The first indication of improvement will be found in the restoration of the healthy action of the kidneys. Should this not take place very shortly, digitalis should be given.

The best form for exhibiting this remedy with reference to its diuretic effect, is, certainly, the infusion, made according to the prescription of Withering, except that sweet spirits of nitre may be substituted for the Tinct. Cinnamomi, with great advantage. You will find the mode of preparation given in the article on digitalis in the Dispensatory of Wood and Bache. The dose must of course be proportioned to the age of the patient. If there be much fever, and the urine be very scant and high colored with deposit of a brown flocculent matter, there can be no room to doubt the presence of active congestion or inflammation of the kidney, which will be best met by the application of leeches or cups to the loins. I have found the perseverance in nitre and diuretic remedies in these cases, without first removing the local inflammation by blood-letting, to aggravate the sufferings of the patient without producing any increase of the secretion.

But of all the manifestations of disease which mark the progress of scarlet fever, none are so much to be dreaded as the cerebral affections which occur at the period now under consideration. By some authors we are taught that meningitis is suddenly developed and proves fatal, either by giving rise to serous effusion, or terminating in the secretion of pus, or lymph. I have never met with cases in which I had reason to suspect the results last mentioned. The serous effusion is comparatively of frequent occurrence, and is sometimes poured out so rapidly as to produce convulsions and death, before the proper means for relief could be applied. In other instances the effusion takes place more gradually, but with an equally fatal tendency.

Some years since, I was attending a young gentleman of about 15 years of age, who was apparently convalescent from

a severe attack of simple scarlet fever. He was an only son, and the object of intense anxiety to his parents. My directions about diet and exposure were carried out with great care; and yet the fever, and suspension of secretion from the skin and kidneys, supervened at the end of the second week. I at once resorted to purgatives and nitrate of potash. On the third day I was summoned to see him lying entirely comatose, with slow pulse, dilated pupils and cool skin. There was no metastasis of the effusion to the brain, for his whole body was œdematous. Recognizing at once the urgency of the case, I tied up his arm and bled him largely, and then put him on the use of small doses of calomel and nitrate of potash, with the infusion of digitalis. At the end of forty-eight hours the kidneys resumed their natural action, and in less than a week the whole train of symptoms had disappeared. These cerebral symptoms depend on the effusion of fluid into the ventricles or at the base of the brain, rather than on any vascular congestion or inflammation of the membranes, and are consequent upon the same causes as those which give rise to the anasarca; and the bleeding acts by curing the condition of the kidneys upon which the whole series of symptoms depends, as well as by withdrawing a portion of the blood, rendered unhealthy by the retention of matters which should have been eliminated by the skin and kidneys.

The next most formidable of the sequelæ is the effusion into the cavity of the pleura, or the parenchyma of the lungs, giving rise to the most distressing orthopnœa. Depending on the same cause as the cerebral cases just noticed, it requires the same treatment which should be pursued with the same degree of energy.

I have never seen a case of dropsical effusion following scarlet fever, which was not materially aggravated by the resort to tonic or stimulating remedies. When the effusion, whether general or local, has been absorbed and discharged through the kidneys, but not till it has entirelydisappeared, it will be proper to resort to the use of some mild tonic; small doses of quinine in the first instance, followed by some of the preparations of iron, with fresh air and a good diet. It must not, however, be forgotten, that the convalescence from these attacks is slow. And that it is even possible that many

months may elapse before the patient is restored to a condition of entire health.

The Rheumatic Fever I have always found yield to properly graduated doses of Dover's powder, or morphia and sweet spirits of nitre. Should the pulse be tense and quick, and the suffering prolonged, bleeding would be appropriate in this case also.

Diarrhœa depends upon the irritation produced by the acrid matter swallowed from the throat, and is most likely to occur after very severe anginose or malignant cases. It is quite possible that ulceration of the mucous membrane may be thus induced, keeping up this unpleasant disease a long time, and retarding the restoration of the strength of the patient. Opiates and mild absorbent remedies are the agents upon which we must rely in such cases, and we shall generally find the disease yield to such applications. I have, however, known the irritation transmitted from the ulcerated membrane to the mesenteric glands, and the patient has died, worn out by profuse discharges and hectic fever, after weeks of suffering.

Case of Constricted Vagina and Occlusion of the Os Uteri. By Laurence Turnbull, M. D.

Mrs. G., æt 39, wife of an estimable farmer, residing at Livonia, New York, came under my care for surgical treatment on the 14th of May, 1851, when the attending physician Dr. J., Clark, related to me the following narrative of the case.

She had passed through most of the exanthematous diseases, suffered for many years with a large thyrocele that eventually disappeared under the use of iodine, and since her eighteenth year had seldom escaped a daily headache accompanied with nausea and frequent vomiting.

After two successful confinements she was seized in labour, on the 15th of April, 1848, at 2 P. M., having been pregnant from the best estimation, 300 days. The labour continued twenty-four hours, and not the least advancement of the head could be perceived; it lay in the greater basin of the pelvis, hard, unyielding, and apparently much too large for engagement. A consultation had been requested and obtained, when exhaustion coming

on, it was resolved to perforate the head, which being done, the occiput soon presented itself at the vulva, and shortly afterwards the body of the child was drawn away, requiring, however, considerable mechanical force.

Upon examination, the child presented many evidences of unusual development; the scalp was abundantly supplied with hair, and ossification of the cranial bones had proceeded so far as to prevent that moulding of them which facilitates parturition, making it very difficult to perform craniotomy.

Inflammation of the pelvic viscera supervened, accompanied with severe fever, and very fetid and scanty lochial discharge; after a protracted illness of six weeks, she recovered sufficiently to engage in her domestic affairs, at which time a sanguineous discharge took place from the vagina. Other than that, she never evacuated any menstrual fluid since her confinement; her catamenia never had any exact periodicity, or fixed quantity, sometimes occurring once in three weeks, at others prolonged; from motives of fastidious delicacy, no vaginal examination was made during her sickness.

She spent the two succeeding years with some degree of comfort, experiencing, however, much difficulty in walking, from a sense of constriction across the anterior portion of the pelvis; her headache and vomiting were exacerbated at irregular intervals; the latter occurred soon after rising in the morning, ejecting a fluid of blue, green, or yellow color, often tinged or mingled with blood.

On the 16th of March, 1850, frequent and difficult micturition appeared, together with pains similar to the expulsive ones of labour originating in the axis of the pelvis, and radiating to the sacrum, lumbar regions and thighs: immediately subsequent to this the whole abdomen became excessively sensitive and tympanitic with high fever, great prostration and pulse ranging from 120 to 150 per minute; these symptoms subsided under the free administration of quinia, tinct. opii, and revellents to the abdomen.

An examination by the rectum at this time, gave nothing but the sensation of a corrugated condensed tissue in front of the intestine; the vagina was constricted to an orifice one line in diameter, situated at the junction of the right rami of the ossa

ischii and pubis; the orifice was at the bottom of a funnel-shaped depression, three-fourths of an inch in depth, and compressed on the right, where it was contiguous to the bone; by using considerable force, and spending several hours in the attempt, the blunt end of a common pocket probe was insinuated full five inches, taking a direction to the right of the promontory of the sacrum; female catheters of a graduated size, were afterwards introduced, and at a still later period, some silver gilt vaginal bougies manufactured by Mr. Warner of this city, and recommended by Prof. C. D. Meigs, who on many occasions kindly advised as to the treatment of the case.

1850, September 14th. By using the bougies the vagina has been nearly restored to its natural dimensions for the distance of three inches from the vulva: (she was unable to wear them constantly and they were therefore applied once a day, or as often as the state of the parts would admit;) at this point is a circular constricting band of a hard and fibrous character, through the centre of which, a common catheter passes freely, and rotates with ease in different directions, giving the impression that there is a free space beyond it; the opening sometimes admits a bougie three-fourths of an inch in diameter, at others the catheter cannot enter. Within the vulva to the left, and partially in front of the vagina, could be felt an oblong, oval, smooth body, visibly occupying all that side of the excavation, occasionally soft, compressible and almost disappearing; again it contracts, bears down upon, and pushes the finger to the right, when introduced into the vagina; this would seem to account for the direction of the probe when first inserted. All attempts to overcome the constriction by dilatation gave immediate relief from the singular sensation in the anterior portion of the pelvis; the instruments when removed were covered with a clear sanguinolent mucus.

By palpation of the bladder when distended, it appears to occupy its natural position, but above the umbilicus can be felt the uterus, five inches or more in diameter at the summit, hard and condensed when the pains come on, soft when they are absent; at first occupying the right lumbar region, it now rests in the mesial line of the body; by ballottement it evidently has a connexion with the tumor in front of, and to the left of the vagina, one being pushed

up the other follows it, and vice versa: fluctuation is perceptible in both.

Tenderness of the abdomen has entirely subsided, but expulsive tenesmic pains recur at regular intervals of three or four weeks, commencing at 7 A. M., disappearing about 12 M., and continuing from one week to three.

At these periods she has no fever, though the circulation is somewhat accelerated, the extremities become cold, and the vomiting is increased, large quantities of muco-gastric fluid being ejected: her gums in the morning are encrusted with a layer of sanguineous sordes, sufficiently thick and tenacious to be removed by the finger, which as it is not the result of scorbutus oris is an anomalous perversion of function. During these attacks she is generally confined to bed with loss of appetite and constipation, though retaining thus far her usual fulness of body; she obviates the constipation by confectio sennæ, and partially allays her pains with tinct. opii.

Sept. 20th, 1850. An important change occurred; the tumor was reduced to nearly one half its former size, attended with severe pain, constitutional prostration, increased emesis, the evacuation of a large quantity of pseudo-membranous substance, from the intestine, also, some pinkish fluid from the vagina; after this, her pains ceased for some time, appetite improved, and she was able to go about the house.

1851, March 8th. The resisting constriction had been broken up, but no os tincæ was discernable by the touch beyond it, and the pain had commenced recurring as before, requiring large doses of laudanum to subdue them; the operation of puncture was proposed by the attending physician, but Professor Meigs considered it a dernier resort, and advised the employment of a sponge tent, which proved exceedingly serviceable in distending the vagina, and making the subsequent operation more easy of performance.

1851, April 21st. The increasing distension of the uterus had caused it to descend and fill the excavation, compress and shorten the vagina, as well as render defecation and micturition very difficult. She was much exhausted, her pains becoming insupportable, even under the daily consumption of f.℥ss. tinct. opii. Life seemed endangered, and some prompt action was re-

quested, and application was therefore made to several medical gentlemen of this city to visit her; I complied with the request, and arrived there on the 14th of May.

Upon the occasion of my visit, she was in bed, suffering little or no pain; her countenance, cheerful, pallid and emaciated, was devoid of any cachectic hue; her nails were aduncated, like those of tuberculous patients, and she occasionally had cough, yet no evidences of pulmonary disease were afforded by physical diagnosis.

The tumor, occupying the umbilical and hypogastric regions, now measured eight inches from its summit to the symphysis pubis, and six inches at its largest diameter; the mucous lining of the vagina appeared healthy, save a small abrasion at its distant extremity; its lateral dimensions were natural; it would, however, admit the speculum only two and seven eighths inches, through which, at the bottom of the canal, were seen two semilunar elevations, three-fourths of an inch long, their long diameter being antero-posterior, and separate from each other about one half of an inch: the intervening space was occupied by a dense and fibrous substance, against which probes were pressed on many points, but no place was found where they would enter; this, on consultation, we determined to make the point of puncture. About an ounce of urine could be retained at once, the catheter, when introduced, taking a direction in front of the tumor, which still remained on the left of the vagina, and could be felt through the rectum.

The bladder and rectum being well evacuated, and a bandage applied, on the succeeding day, the 15th, in company with Dr. Clark and his son, Dr. H. Clark of Philadelphia, and the husband and father of the lady, I thrust in an exploring trocar at the selected place; its entering extremity moved freely in different directions, and some blackish fluid escaped on its removal, when a curved trocar and canula the size of a crow's quill, were next introduced, passing through a resisting tissue one half of an inch in thickness.

On withdrawing the trocar, a thick, ropy, molasses-like, deep hyacynth-red fluid flowed slowly away, and continued to escape, until twenty-seven ounces were collected, the canula being retained in situ for the two following days, during which time much

more was evacuated; the tumor in the abdomen contracted to the size of the uterus after delivery; the one on the left of the vagina disappeared, and that canal elongated itself to nearly its normal extent; she soon became more lively, moved herself with alacrity, partook of supper, and that night enjoyed the most refreshing sleep she had known for many months.

The 18th was about the period of the recurrence of pain, and an interesting chain of phenomena presented themselves; head-ache, vomiting of a green liquid, hurried and oppressed respiration, sibilant ronchus, exquisite sensibility of the hypogastric region, pulse 130, full and soft, the uterus increasing in size, but without an antecedent chill; calomel, opium and neutral mixture, with sinapisms, and opiate cataplasms to the abdomen, were ordered, and at evening the symptoms had lessened in intensity, to reappear on the next day, but with diminished severity.

During this time the puncture had been kept patulous by the occasional introduction of a Simpson's sound, the end of which moved freely as if in a large quantity of fluid, but none made its escape after taking it away.

May 20th.—This morning she appeared quite at ease, though still in bed. Left her, on my departure for Philadelphia, in the hands of Dr. Clark, who has kindly furnished the following notes:—

"21st.—Fell into syncope at 10, A. M., but soon revived; tenderness of the abdomen diminished; appetite improved and sleeps well; quinia and brandy administered freely, and Tr. Opii M. xxv. given occasionally.

"22d.—Pulse 100—this rate has become almost habitual; no pain, and feels vigorous; sound passed with no resistance, but after taking it away a large quantity of fluid escaped of less consistence than the former, with an intolerable odor of sulphuretted hydrogen.

"23d.—Fluid commenced flowing per se at 3, P. M., having ceased during the preceding night; abdomen flaccid without soreness, and a marked sensation of relief in both iliac regions; occasional colicky pains.

"24th.—Four napkins saturated with the fluid, alternately consistent and limpid, but retaining the nauseous odor; she is loud

in her exclamations of relief; enjoys the free expansion of her lungs and is full of vivacity. Quinia and brandy still continued, with Tr. Opii, p. r. n.

24th, Evening.—Discharge continued without interval: less odor; soreness in the region of uterus and right ovarium; tumor in the right iliac region; pulse 92, tongue coated, bowels free, little perspiration, no fever, appetite indifferent; Tinct. Opii., M. xxv., night and morning.

25th. Two attacks of emesis after leaving her yesterday; vagina syringed with a solution of castile soap and mucilage: large discharge with occasional grumous clots of very dark color and offensive odor yesterday afternoon; none since 6 P. M. yesterday; tumor in right iliac region the size of a goose egg and very sensitive; pulse 100 appetite variable; slept well the preceding night.

26th, 11 A. M. Free evacuation from the bowels accompanied with pain; refreshing sleep last night: free discharge from the uterus of a blackish color resembling the dregs on a laudanaum filter, and bad odor: increased fulness and tenderness in the hypogastric and iliac regions; pulse 90; copious perspiration; appetite bad. Treatment: Quinia gr. ss., every two hours; Brandy and Tinct. Opii. occasionally; ointments of Sugar of Lead and Opium locally.

28th. Improved in all respects; pulse 88 and soft; tongue nearly clean, slept well last night; perspiration free, appetite improved, feels more vigorous; bowels free and discharge continues. Treatment same as before.

28th, 5 P. M. Passed the day quietly; three evacuations from the bowels attended with pain: vaginal discharges of less odor and consistence; diminished abdominal tenderness; appetite the same; pulse from 80 to 90.

29th. Patient expressed herself better than any day since the operation; tumor smaller; tenderness and tension of the abdomen subsided; emplast. belladonnæ to the hypogastric region; pulse 90: strength, appetite, &c., improving, while the disharge continues with odor like that of an accouchée. M. xxv. Tinct. Opii.

30th. No change from yesterday.

June 2d. Patient sent for me: was very weak: pulse 132, the

previous night a restless one; severe pain in both iliac regions, not relieved until she had taken Tinct. Opii. fʒii; discharge watery and offensive: vomiting recurred; bowels confined, tongue coated, no appetite and thirsty. Quiniæ Sulph. gr. ss. every three hours. Brandy occasionally.

3d. 5 P. M. Requested to visit the patient at 1 A. M. Very feeble, pulse scarcely perceptible: Quinia gr. ss. every hour; brandy liberally: chickenbroth tablespoonful every half hour: at this time much more comfortable, pulse 120, bowels confined, urine high colored, perspiration copious, less tenderness and occasional vomiting. Opiate cataplasms to the abdomen; sound passed readily: after its removal two three ounces of a cineritious colored fluid flowed away: it was extremely offensive; administered two injections of fʒiv. each of tepid water; gas escaped from the uterus with a hissing noise followed soon by a loud report, then fluid with a gurgling sound having the appearance of soap suds.

4th, 4 P. M. Rested well last night, no pain or soreness since the injection; a stool after three enemata; urine natural and freely evacuated: nothing from the uterus since the washing out; pulse 110, full and soft; breathing natural, perspiration free, tongue clean at tip and edges, no appetite, some thirst, stronger, vomited several times; abdomen tympanitic, relieved by enemata of vinegar and water.

June 5th, 6 P. M. Saw the patient this morning; passed the night pleasantly; pulse 100, perspiration less profuse, abdomen less tympanitic and less tender, bowels confined. Prescribed Hyd. Chlorid. Mit., gr. iv, enemata if requisite, and alcoholic lotions; she has been quiet through the day, vomited several times fluid of a green color: two enemata administered followed by two natural evacuations; no discharge from the uterus; urine of natural appearance and quantity, pulse 120, white incrustation on the roof of the mouth; os of healthy appearance, bile just escaped per anum; Quinia gr. ss. every hour, brandy occasionally; Tinct. Opii. gt. xxv, twice a day.

6th. Little sleep last night; frequent vomiting of green fluid; changed this morning to brown color similar to that thrown off at previous times; countenance haggard, apthous incrustation of the palate and fauces; membrane beneath of a dark mahogany

hue; pulse small and frequent; extremities cold, inclination to profuse perspiration; bowels slightly opened, healthy bile evacuated; urine passes freely and of natural color; tongue less coated, no appetite or pain; less tumefaction of the abdomen; slight tenderness in the left iliac region; no discharge from the uterus, and no odor in the room. Decoction of tansy to the abdomen for the last twenty-four hours; the pain, a stimulus to which she has been accustomed, being gone, nothing appears adequate to the task of rallying the worn out energies of the system; 3 P. M., these notes close with the patient's life; I have no remarks to make other, than that I wish the operation had been performed six months earlier."

I regret exceedingly that Dr. Clark made no post-mortem examination, but the practical deductions to be drawn from the case are the following:

That, in all cases of instrumental delivery where sloughing occurs, great care should be exercised in keeping the parts dilated, by means of bougies, and daily examinations should take place, so as to break up irregular contractions. In this case, nearly two years were allowed to elapse, and the menstrual fluid accumulated; the watery particles passing away, there was left a concentrated fluid, a portion of which may have escaped into the cavity of the peritoneum, through the fallopian tubes, there causing acute inflammation, which is probable from the symptoms, on the 16th of March, 1850.

It has been found by the most recent observers, that when the womb is dilated by fluid within its cavity, the fallopian tubes are patulous, and therefore, when severe contractions occurred, a portion of the fluid might readily escape in that way.

In most cases where this operation has been recorded, it was performed soon after the accumulation occurred, and not left until the powers of the system were weakened by long continued suffering, and the patient unable to perform the functions so important to health.

Locust street, Philadelphia, October, 1851.

Remarks upon Medicinal Inhalation, and its applicability as a remedial agent, for the prevention and cure of Consumption, Bronchitis, and other diseases of the Respiratory Organs. By Edward Jenner Coxe, M. D., of New Orleans.

By Medicinal Inhalation, is to be understood the inspiration of air, impregnated with the active principle of medicines, calculated to produce a local remedial effect upon that part of the mucous membrane of the respiratory organs which may be in a morbid condition, and, indirectly through it, upon those diseases implicating other portions of the lungs.

To accomplish this object in a perfect manner, two modes may be employed.

One, by causing the patient to breathe in a close room, the vapors or fumes of such medicines as may be considered appropriate to the existing disease. This is readily accomplished by placing the proper solid or fluid medicine in a vessel over a few live coals, or a lamp; an ordinary nursery lamp will admirably answer the purpose.

The other, and most efficient mode, is by means of a properly constructed inhaler, consisting of a vessel of glass, or other material, with a tightly fitting top, and two tubes, one, extending internally from the upper surface of the cover to within half an inch of the bottom, the other extending from the under surface of the cover, six or more inches in length. Through this external tube, furnished with a mouth-piece, inspiration or inhalation is to be carried on, and expiration through the nostrils. The medicinal fluid being poured into the inhaler, inhalation is effected by drawing into the lungs, through the external tube, the air contained in the inhaler over the surface of the fluid. The air thus inhaled, has its place naturally supplied from the external air by the inner tube, and passing through the medicinal fluid, is impregnated with the active principle of the medicines employed.

Such is medicinal inhalation, and as the process can be continued as long and as frequently as may be desired or ordered, it follows necessarily, that if the air does extract the medicinal properties of the articles employed, these must be applied to every

portion of the mucous membrane of the air tubes, thus exerting a decided curative force.

That this effect does result, cannot admit of a doubt, and requires no reference to the numerous facts and experiments easily adduced in proof of it. The only debateable point is the selection of the appropriate remedy, or combination of remedies known, when thus applied, to exert a curative influence. By means of the inhaler thus described, the following are some of the remedies used, resulting in alleviating or curing diseases, that have proved incurable by the ordinary modes of treatment: Balsam copaiva, creosote, tar, naptha, turpentine, cyanuret of potash, iodine, iodide of potash, assafœtida, camphor, the various narcotic extracts and tinctures; tannin, galls, cayenne, in decoction and tincture, tincture of iodide of iron, the infusion or decoction of different tonics, and astringent vegetables, &c.

This manner of employing medicinal inhalation originated with Dr. Mudge, an English physician, who published a work on the subject in 1799, in which is delineated and described a correct inhaler as above.

Until the last fifteen years, the inhaler used in the United States, though called by his name, resembled the original only in external appearance, wanting the most important part, the internal tube, to allow the passage of the external air through the medicinal fluid contained in the inhaler. This fact offers a sufficient explanation of the disappointment resulting from the employment of that misnamed inhaler, or its usual substitute, a common tea-pot. If the top of this inhaler or tea-pot be tightly fitted, it is manifestly impossible to inhale more than the limited quantity of air existing over the surface of the fluid in the inhaler; and if the top does not fit it accurately, it is equally evident that the air inspired can only be that entering from without, to supply the place of that inspired, but not passing through the medicinal fluid. In either case, it is clear, that the air not passing through the fluid, cannot contain a particle of medicinal power. Inhalation thus practised, certainly does not deserve to be noticed by those, who, in their practical works allude to medical inhalation as a means of cure or alleviation.

The reason of my personal and practical interest in this va-

luable remedial agent, proceeds from the fact of my having suffered for many years from a severe and constant disease of the larynx, attended by pain, hoarseness, and at times total loss of voice, and copious muco-purulent expectoration. Deriving no permanent benefit from eminent physicians of Philadelphia, or of Trousseau and others of Paris, and finding a long continued rigid system of diet, frequent leeching, cupping, bleeding, blisters, tartar emetic ointment, setons in the throat and breast, a winter's residence in the island of Madeira, and three years in Nice and other parts of the South of Europe, unable to effect a cure, I fortunately resorted to medicinal inhalation, properly so called, which succeeeded most perfectly. It may not be amiss to state, that I had previously given a most ample and long continued trial to the incorrect mode of inhalation which had been recommended, without the slightest benefit.

In consideration of these facts, would it not be strange, did I not in a decided manner assert, that medicinal inhalation does possess curative powers, and believe that the result of my experience in many cases besides my own, will not be without some weight with the profession, in reference to its intrinsic value?

A strong argument in favor of a more general and perfect trial of medicinal inhalation, is deduced from the consideration of two well established facts in reference to those prevalent and fatal diseases, consumption, bronchitis, and laryngitis, for which it is recommended as a means of prevention and cure.

The first is, that the diagnosis of the healthy or morbid condition of the respiratory organs, is at present more readily and certainly ascertained than before the discovery of the immortal Laennec.

The second, that notwithstanding this advance, the possibility of effecting a cure in confirmed cases of the above diseases, is by many considered problematical, or at least, of exceedingly rare occurrence.

The statistics of our country and Europe, prove the generally fatal termination of those diseases, regardless of the stereotyped system of treatment so pertinaciously persisted in. In the exceptional cases, where a cure does result, it may be questioned whether such is due to the medical treatment strictly speaking,

with the exception of that part, having a tendency to maintain and increase the general strength, thereby enabling the restorative power of nature to heal by her own laws, those morbid conditions, depending upon many general causes, and requiring the aid of hygienic, rather than medical treatment. Numerous authorities could be cited to prove that the commencement of many diseases for which medicinal inhalation is particularly proposed, depends upon a morbid or depraved condition of the system, either hereditary, or resulting from the combined influence of poor living, impure air, and a total disregard of common sense in respect to clothing, exercise, or diet, finally localizing itself upon the important pulmonary organs, thus undermining the main springs of health, and rendering, after a time, all efforts to arrest its progress of no avail. It necessarily follows, if we are to hope for improvement in the treatment and termination of the diseases alluded to, that we must not wait until we have presented all the symptoms indicating the firm hold upon the organs, but rather watch for the forming germ, and adopt hygienic and other measures, to arrest and overcome the morbid predisposition, and force or coax nature to repair the evils resulting from a combination of causes, favorable to the rise and progress of an almost incurable disease. As one of the means, well calculated to aid in the accomplishment of so desirable an end, by giving vigor to the pulmonary organs, and others connected with them, I have no hesitation in assigning a very prominent place to medicinal inhalation.

In pursuing the consideration of this curative agent, it is necessary to enquire into its mode of action, which I regard as twofold. The one, altogether mechanical, consisting in the gradually increased expansion of the lungs, by drawing a large volume of air into them, allowing them to remain in this expanded state for as long a time as can be endured without pain or uneasiness, and finally permitting the air to be expired slowly through a valvular opening of the lips, a small reed, or quill, or one of the many breathing tubes made for that purpose, though in no respect superior to the other modes. By repeating this process more or less frequently, during the day, for fifteen or twenty minutes each time, we have an increase of size, or capacity and strength, and as an effect, a permanent enlargement and

strength of the thorax, an increased action of the heart, with a more perfect distribution of the blood to all parts of the system.

The second consists in the remedial and curative power exerted by the local application of the vapor or fumes of such remedies as may be indicated by the symptoms of each case, and the stage of the disease.

By the correct adaptation of remedies to the existing disease, we can produce positive effects, similar, and often superior, to those resulting from the internal exhibition of medicines, with the advantage of not harassing the stomach and bowels.

If successful in establishing what may correctly be attributed to the local application of remedies, may it not be expected, that inhalation will be more generally brought into notice, its claims upon the profession more clearly defined, and the proper manner of using it, as well as the medicines to be employed, more specifically laid down for the guidance of those who may desire to benefit others by its employment?

In endeavoring to place medicinal inhalation upon its proper basis, let it not be supposed that impossibilities can be effected, by restoring to perfect health those already at the verge of the grave. Let it rather be regarded as a remedy to be employed at the forming stage of the disease, or, in those cases where such may be apprehended, to impart vigor to the thoracic organs, and thus arrest the progress of morbid action.

An occasional trial will not suffice to decide as to the actual value of this remedial agent; time, perseverance, and a long continued series of observations are indispensable. The end to be attained is certainly deserving of our most strenuous exertions. In the following observations and conclusions of those who have recorded their experience, it will be seen, that some allude to the mechanical action of inhalation, others to the curative effects resulting from the different medicines employed. Dr. A. T. Thompson says, "There is one description of exercise too little attended to, but which is nevertheless, of great importance in warding off pulmonary diseases, namely, the exercise of the chest. Nothing is more essential for the preservation of health, than the full expansion of the lungs, so as to maintain the free passage of the air to the minutest tubes and all the air cells, to promote the pulmonary circulation, and to favor that complete change in the blood, for which the respiratory motion is intended." Dr.

Tweedie says, "Changes of structure in the bronchial tubes, are most commonly the result of inflammation, or of some kindred modification of the nutritive process. Frequent recurrence, or long continuance of inflammation of the bronchial membranes, as in other structures, changes their condition, and the mechanical forces to which they are subjected in the junction of respiration, may variously modify this change. Inasmuch as these lesions seem to arise from continued inflammation, it becomes of the more importance to direct remedies against those forms of bronchitis, that are habitual, or frequently recurring. An imperfectly cured cough will often harass a patient for months, and even for years. In process of time, the breathing becomes permanently shortened, and an irritation is often fixed in some of the tubes, manifesting its effects on their secreting function by habitual expectoration, generally thin and mucous, sometimes muco-purulent. There is one point with regard to treatment particularly suggested by a knowledge of this change of structure—that, not only should the practitioner persevere in the use of the means which tend to eradicate the low degrees of inflammation that produce it, but he also should endeavor to countervail, by mechanical means, that mechanical limitation, which this change induces in the size of the tubes. If the patient use no exertions, and give his lungs little play, any increase in the rigidity of the tubes will more readily fix them in their present contracted state; but if he take moderate exercise, increased as habit improves his power, the lungs will be kept in that free mobile condition that is least favorable to rigidity or deposition of any kind. Probably, special efforts of inhalation would be useful with the same view, and, as this might be combined with some mildly stimulating vapor, such as that of water impregnated with tar, or camphor, it might also be serviceable in improving the secreting properties of the membrane."

Dr. Good, observes, "A moderate use of the vocal organs, as of any other, tends to strengthen them, and to enable public speakers, singers, and performers on wind instruments, to go through great exertion, without inconvenience, which would be extremely fatiguing to those who are but little practised in any of these branches; but the labor is often carried too far, and the lungs become habitually irritated, and hæmoptysis succeeds.

The organs of respiration, like those of every other kind, derive strength instead of weakness, from a temperate use of them."

Says the eminent Professor Rush, "Those persons who have been early instructed in vocal music, and who use their vocal organs moderately through life, are seldom affected by a hæmorrhage from the lungs. Lawyers, players, public criers, and city watchmen, all of whom exercise their lungs either by long or loud speaking, are less affected by this disease than persons of other occupations. The lungs, when debilitated, derive equal benefit with the limbs, or other parts of the body, from moderate exercise."

Dr. Mudge says, "The two great indications, of preventing an increased irritation by the cough, on the inflamed parts, and removing inflammation itself, by such emollient applications as could most conveniently be applied to them, are thoroughly answered by opium, and the inhaling warm steams into the lungs, and the fact is past dispute, that the conjoined powers of those agencies are a sure, and, in general, an immediate cure."

Van Swieten remarks, "It is certain that steam and vapors drawn in with the air in respiration may be of use, as they everywhere come in contact with the whole aerial cavity of the lnngs, and thus various remedies may be applied, according to the various conditions of the ulcer."

Dr. Baillie says: "In quinsy, should leeching and other treatment not materially lessen the inflammation of the tonsils, and velum palati, the progress of the inflammation should be encouraged by inhaling the vapors of boiling water and vinegar, as, by this means, the disease goes more quickly through its process, and the patient suffers less."

Dr. Pringle remarks: "I have likewise observed good effects from making the patient breathe over the steam of hot water, a practice recommended by Bœrhaave and Van Swieten, and confirmed to me by the repeated trials of Dr. Huck, who found it more beneficial when the phlegm was viscid, as well as more grateful to the patient by adding a small portion of vinegar."

Dr. Rush says in a note to the above: "Too much cannot be said in favor of this simple and powerful remedy; the editor has seen patients snatched from the jaws of death by it."

Dr. Crichton, after giving cases in which fumigations of tar

had been used, remarks: "It must be evident from the preceding cases that the tar fumigations, though completely successful in some of them, did not produce the same good in all, but on the other hand, the very great relief which every patient has experienced at first from it, particularly in the diminution of cough, expectoration, and hectic fever, is a fact which ought to encourage us to multiply the trials of this remedy as far as possible."

Delpit observes: "If any species of consumption exists in which simple or compound fumigations become useful, it is certainly in that of the larynx, more accessible and susceptible to their influence."

Mascagni says: "If an efficient remedy for diseases of the lungs is ever discovered, it will be one that can be applied by inhalation."

Dr. Thomas relates a case of hooping cough of three weeks' standing, cured in ten days, by confining the patient in a room, and causing him to inhale the fumes given out by adding gradually half an ounce of powdered nitrate of potash, to half an ounce of sulphuric acid in a tea-cup.

Dr. Pearson found the vapor of ether very serviceable in cases of consumption, and that, in some cases, combined with musk, camphor, opium, assafœtida, and similar articles, it appeared to possess greater power.

Dr. Ramadge lays great stress upon the advantages resulting from the free use of inhalation through a long tube, which is altogether mechanical in its action. He says: "Inhalation performed two or three times daily, for half an hour each time, will, in the short space of a few weeks, work a wonderful change on the chest externally; the muscles concerned in respiration will be manifestly enlarged, and the bony compages of the chest visibly increased, whilst, at the same time, the natural respiratory murmur will be heard far more distinctly than ever."

Dr. Elliotson says: "I have made many phthisical patients breathe for four or five minutes, four or five times a day, through a mixture of creasote with mucilage and water, but with no further effect, in general, than occasionally an increased facility of respiration, and a diminution of the cough and expectoration. Some, it always appears to irritate, and all in whom any degree

of inflammation exists. I am satisfied it is no remedy for tubercles. Where, however, only a single ulcer, or but a small number, exist in the lungs, and there is no disposition to further tubercular formation, it is very beneficial. In bronchorrhœa, or that state of the bronchial mucous membrane which consists in a profuse secretion without inflammation, I have seen its inhalation of essential service, and in one instance of this affection in which the expectoration was extremely offensive, the cure was very rapid. In asthma, also, dependent upon morbid excitability of the bronchial membrane, its inhalation is often useful."

In chronic affections of the fauces, larynx, trachea, and bronchi, I have frequently employed creosote by inhalation, generally combined with other medicines, with marked benefit, and while the testimony of Dr. E. is decidedly favorable to its use, it clearly shows the necessity of discrimination in the selection of remedies, no less than attention to the existing stage of the disease.

Dr. Mackintosh remarks: "The inhalation of hot vapors will be found very serviceable in croup, and in chronic complicated cases of bronchitis, service may be expected from the inhalation of tar vapor. In scarlet fever, when the throat is much affected, inhaling the vapor of warm water affords more ease than any argle."

Dr. Eberle says: "The inhalation of aëriform fluids may be employed to great advantage in the treatment of pulmonic affections. In this way we are enabled to make direct impressions on the respiratory organs, a circumstance which experience has shown to be of much consequence in many of the diseases to which these organs are liable. In catarrhal affections, attended with painful and difficult expectoration, much benefit may generally be obtained from the inhalation of the steam of hot water, or of vinegar and water. This acts as an emollient and soothing application to the tender and inflamed vessels of the internal surface of the bronchial tubes.

In Pneumonia, after the violence of the arterial excitement has been reduced by depletory measures, the inhalation of the steam of hot water, or decoctions of emollient herbs, will often contribute much to the support of an easy and regular expecto-

ration. In no affection, however, are inhalations of this kind more decidedly beneficial than in the paroxysms of asthma. Inhalations of warm water and vinegar are often very serviceable in cynanche tonsillaris and trachealis. The inhalation of ethereal vapors is a remedy of very considerable value in certain affections of the respiratory organs. In dyspnœa, depending on a spasmodic condition of the pulmonary system, I have frequently derived very great benefit from the inhalation of the vapors of sulphuric ether. In two cases of hooping cough that had been mismanaged during the early period of the disease, and in which the expectoration had assumed a purulent appearance, I have derived decided benefit from tar fumigations. This remedy has also been found very useful in asthmatic affections. In acute inflammatory diseases of the lungs, however, it cannot be employed without doing mischief. The inhalation of the tar fumes appears to be particularly beneficial in chronic bronchitis, or in that form of pulmonary consumption which depends on chronic inflammation of the mucous membrane of the bronchi."

Dr. Thomas observes: "To moderate the severity of the paroxysms in asthma, we cannot employ a more powerful and efficacious means of relief than the inhalation of steam frequently from an inhalator; an infusion of chamomile flowers, with the addition of a little ether, may be used on the occasion."

Sir C. Scudamore remarks, "Much professional scepticism appears to be entertained concerning the possibility of affording any material relief in cases of consumption. This I must condemn. It is I conceive less adverse to the interest of science than of humanity, to consider any disease as absolutely incurable. Our art is doubtless bounded by certain limits, but let not these limits be still further circumscribed by our own supineness and prejudices. It has often happened, that valuable remedies have been laid aside or neglected, in consequence of some mismanagement in their use, or perhaps, from an excessive zeal in the recommendation of them by their authors, so that not being found capable of producing the promised effects, they have experienced the unmerited fate of being rejected as useless.

"Some of the medicines which I have recommended for inhalation are agents of much delicacy and power. My conviction

of their most perfect safety employed in this manner, has not been shaken by a single untoward instance, but it is right to state, that their administration requires careful attention and management. The composition of an inhaling mixture, and the doses to be used, are to be adapted to the particular case, and changed according to its varying circumstances, in the same manner as we find it necessary and proper to alter and accommodate our treatment with internal medicines.

In consumption, even in desperate circumstances, I recommend the use of inhalation, as being calculated more than any other treatment to mitigate the most troublesome symptoms, and afford the patient great comfort and relief; also, I am persuaded, that such treatment affords the strongest chance of cure. Before the disease has made much destructive progress, and especially in the very early stage of phthisis, I have the highest opinion of the efficacy of the treatment. But I desire to repeat what I have before said, that internal treatment and general management should be joined with the plan of inhalations. I have occasionally, as shown in some of the cases which I have related, found the pulmonary or bronchial disease in so great a degree local, that I have chiefly or wholly trusted to the use of inhalations, and with success; but these are exceptions to the general rule. In chronic bronchitis, the benefits of inhalation are too well proved by the speedy favorable alteration produced both in the quantity and quality of the expectoration, and by the sensible relief which is experienced by the patient, that no question of the value of the remedy can be entertained. It gives relief to the asthmatic patient, proves often curable in cases of consumption, not become desperate in their nature, and is capable of much useful influence even in those extreme examples of the disease which too probably admit only of alleviation, and seem to bid defiance to the ordinary rules of practice."

Dr. Corrigan says, "Of the powerful influence which various vapors and even changes in the air itself exercise as local agents on the lungs there cannot be a doubt; every day's observation shows it; every one in his own person feels it. Even allowing most fully for the exaggerated encomiums of some of the older advocates of inhalation, enough remains in the attestations of such men as Darwin, Beddoes, Withering and their contempora-

ries, to forbid us to abandon this plan of treatment. I think these few observations justify me in coming to the conclusion, that remedies in the form of vapor exert a powerful influence over diseased action; and that, as it is only in this form we can ever administer remedies to act locally upon diseased tissues in the lungs, their exhibition in this form merits close attention and further perseverance."

In the Boston Medical Journal for January 1851, Dr. Cornell observes in an article on inhalations, that, following a plan of Dr. Chambers of London, he has employed the inhalation of fine powders with advantage in diseases of the air passages. The powder to be used is prepared by soaking lycopodium or club-moss in a saturated solution of nitrate of silver, then drying and reducing to a very fine powder. It is applied by placing the tubular end of a glass funnel in the mouth, and simultaneously with a deep inspiration the powder is dusted into the large end, whereby it is diffused over the back part of the throat, a portion at times entering the larynx. This must be regarded as a modification of the plan of insufflation, proposed and practised many years since by Trousseau of Paris.

After having, by his advice, tried most fairly this plan for a long time on myself, without deriving any permanent benefit, and having been three times, from its perfect application and entrance into the larynx, on the point of suffocation, I was forced to abandon its further use, satisfied that no little damage attended, provided the entrance of the powder into the larynx was desired. If this is not, I am perfectly convinced from repeated trials, that the insufflation of the powder is in no respect equal in power or general utility, to the strong solution of nitrate of silver, as recommended and applied by Dr. Green of New York.

In reference to the introduction into the larynx of a strong solution of caustic, while according to Dr. Green the entire merit of so valuable an innovation, and equally convinced in many cases of its great and peculiar value, I feel obliged to remark that, in the majority of cases of diseases of the throat, the introduction into the larynx of the sponge saturated with the caustic, will not be found of absolute necessity; cases are of frequent occurrence in which, by the application of the strong solution to the back and lower parts of the fauces, diseases of

the throat have been perfectly cured, after the failure of all other modes of treatment, except that by inhalation, which had never been resorted to. By means of the strong solution of caustic, in conjunction with medicinal, inhalation, many cases of disease, incurable by other resources will be found perfectly manageable.

Dr. Cornell alludes, in terms of commendation, to another mode of using the nitrate of silver, by imbibing from the mouth of a tea-pot, the vapor arising from a solution of forty-eight grains of nitrate of silver, in eight ounces of boiling water.

To determine the possibility of producing any effect from the local application of caustic, by this, or the proper mode of inhalation, I instituted the two following experiments, using every precaution to make them correct:

After making an inhaler of glass, I poured into it two ounces of distilled water, and fifty grains of the crystallized salt, and when thoroughly dissolved, continued for ten minutes the inhalation, causing the air expired to pass into a solution of common salt. Neither on the palate nor in the solution was the slightest impression made, or effect produced.

To render the matter still more conclusive, I distilled by a glass retort, six ounces of water, and dissolving in this sixty grains of the crystals, I again distilled five ounces from this strong solution, and by testing this in various ways, it was conlusively shown that not a particle of the silver was present, and that, consequently, that mode of employing the caustic was utterly useless.

Although no additional proof was required, I swallowed three ounces of this water, without perceiving any effect as might be supposed. Firmly convinced of the efficacy of medicinal inhalation, properly performed, as a preventive and curative agent, it is to be hoped that it will be more generally resorted to, more systematically and correctly performed, and that the apathy manifested by the majority of the profession in its practical application, will yield to a determination to pursue the subject with an enthusiasm worthy of the object to be attained.

The following remarks of Sir C. Scudamore may appropriately conclude the subject: "It may be laid down as a principle, that inhalation should always be so conducted as not to produce fa-

tigue to the patient in any way, either as regards the composition of the mixture, its strength, or the period of carrying on the process."

Microscopical Observations of Tumors. By JOHN H. BRINTON, of Philadelphia.

It is only since a comparatively recent period, that the microscope has been made applicable to the study of morbid growths, and although many observations have been made, and a number of excellent works published on this subject upon the continent of Europe, still it cannot yet be said, that the morphological arrangements of tumors, more especially of those which are classed under the general term malignant, have been sufficiently elucidated. The diagnosis of such growths has ever been an object of much study and interest to the Surgeon, and any means which can assist his diagnosis, or verify it subsequent to operation, deserve his most careful consideration. Is not the microscope subservient to this most important end? Inasmuch as this subject is beginning now to occupy the minds of the profession generally throughout this country, I shall make no apology for adding the records of the comparatively few cases I have had the opportunity of examining, to the general stock of information, in the certain expectation that at no distant day, the careful and continued investigation of this subject will be attended with results highly important, not only to pathologists generally, but more especially to the practical surgeon.

G. B., æt. 60 years, presented himself at the Surgical Clinic of Jefferson Medical College, complaining of hæmorrhoids. He stated that he had lost large quantities of blood, and was desirous of having the tumor removed. This was accordingly done by Prof. Pancoast, in the latter part of September, before the class. Ligatures were passed through the pedicle of the tumor, which was strangulated, and then removed.

The tumor was about the size of a small orange, soft to the touch, crushing down under the fingers, and very vascular. It had occupied only four weeks in attaining to its present size. The mucous membrane of the rectum, at the point at which the pedicle of the tumor was attached, felt hard to the touch, and scirrhous in its character.

Fig. 1.

(*a*) Cancer cells of various shapes and sizes, magnified 220 diameters showing single and double nuclei, and also granular matter.

(*b*) Arrangement of cells in layers.

(*c*) Action of acetic acid on cells.

Judging from external appearances, the tumor was apparently malignant, and its probable return was stated to the class. Upon squeezing out a little of the fluid of the tumor, and submitting it to the microscope, I found it to contain many cancer cells of different forms, oval, heart-shaped, elongated and round, the oval cells being most numerous, and the round least so. (Fig. 1, *a*.) The cells varied in size from the 1-1000th to the 1-2200th part of an inch in diameter, presenting a clear distinct outline; all were possessed of nuclei and nucleoli, and, in many cells, I found two nuclei. These nuclei were about the 1-4000th part of an inch in diameter. The interspace between the nucleus and the cell wall was filled with granular matter. Many molecules and granules were to be seen floating among the cells, but I did not observe the compound granular cell described by Bennett. Upon placing a portion of the more solid part of the tumor under the field of the microscope, the same appearance of the cells and of the granular matter was observed. The arrangement, however, of the cells was very peculiar and beautiful. They were enclosed in a net work of fibrous tissue, of extreme delicacy. (Fig. 1, *b*.) This tissue did not, as we often find it, enclose the cells in cysts,

but in layers, one upon another. The addition of acetic acid rendered the cell wall transparent, but did not dissolve it, this is proved by the fact that if we drop iodine on the specimen, the cell is instantly colored, and the cell wall brought out definitely. The microscopical character of this tumor was the same as that usually presented by encephaloid.

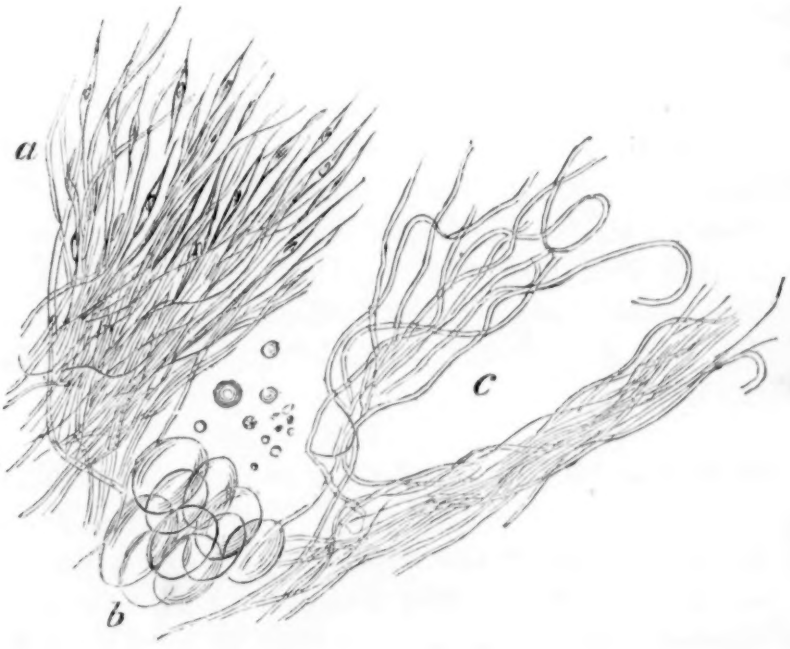
I have used the term cancer cell, not meaning, however, to assert that we must consider any one form of cell as certainly and alone characteristic; indeed, in this very case we have seen several different forms of the cancer cell. That these different forms are, however, only modifications, is admitted by Bennett and insisted upon by Lebert, who, in his "Practical treatise on cancerous maladies, and on curable affections which may be confounded with cancer," published but two or three months since, says: "The type of the cancer cell is a small regular sphere with an elliptical nucleus, occupying about half of the interior of the cell, and containing one or more nucleoli, but that type is not often pure. The cellular envelope takes the ovoid, triangular heart and caudate shape. . . . . .
It would be useless to recount here all the shapes assumed by the cancer cell, it is sufficient to remark that in no other cell do we observe this *multiformity* of the cell wall to the same degree. . . . . The nucleus is, as we have already seen, the constant element of the cancer cell."

CASE II.

At figure 2, I have represented the microscopic appearance of a fibrous tumor, removed during the month of August last. It is an interesting specimen, inasmuch as we have here shown the formation of fibres. The tumor occurred in a patient about 60 years of age, and was situated upon the plantar fascia. It had existed as a small, hard, button-like body, for many years; but it was not until a short time prior to its removal, that it occasioned any inconvenience; it then began to enlarge rapidly, and attained nearly the size of a walnut. The tumor was closely adherent to the skin, which was with difficulty dissected off, and appeared to be of unusual thickness. Upon making a thin section of the tumor, which is best done by the use of Valentin's double-bladed knife, and placing it under the field of the microscope, the true character of the growth became apparent. It

was observed to consist of a fibrous tissue, or rather of bands of tissue; the bands, in some instances running side by side, in a wavy manner; and in others interlacing one with another. The fibres, where separated by the use of the needle, appeared to partake of the character of yellow fibrous, or elastic tissue, forming loops. (Fig. 2, *c*.) Here and there might be seen the fusiform corpuscles described by Bennett and Lebert, which were composed of a simple nucleus, with two caudated extremities, the nucleus being about the 1-3000th part of an inch in diameter. These fusiform corpuscles, by their juxtaposition, evidently went to the formation of fibres.

Fig. 2.



(*a*) Fusiform corpuscles forming fibres, magnified 220 diameters.
(*b*) Fat cells and oil globules.
(*c*) Yellow fibrous tissue, forming loops.

Fat vesicles, and free fat globules were to be found in abundance throughout the whole tumor. (*b*.)

The fusiform corpuscle, the caudate cancer cell of the older microscopists, has given rise at different times to much dispute; although at one period considered to be characteristic of cancer.

It has since been shown that we must expect to find it in all growths where fibrous tissue is at all involved. It is owing to this circumstance that in scirrhus we almost always have it, and we often detect it going to the formation of the reticulum of encephaloid, but no dependence can be placed on its presence as a mark of malignant growth.

BIBLIOGRAPHICAL NOTICES.

A Dictionary of Medical Science, containing a concise explanation of the various subjects and terms of Physiology, Pathology, Hygiene, Therapeutics, Pharmacology, Obstetrics, Medical Jurisprudence, &c., with the French and other Synonymes; Notices of Climate, and of celebrated Mineral Waters; Formulæ for various Officinal, Empirical and Dietetic preparations, &c. By Robley Dunglison, M. D., Professor of the Institutes of Medicine in Jefferson Medical College, Philadelphia. *Eighth Edition, revised and greatly enlarged.* Philadelphia, Blanchard & Lea, 1851.

In the present edition of this popular work, the author has included *four thousand terms* not found in the last, and *has* made it, "not only a satisfactory and desirable," but "indispensable lexicon," in which the student may find every term now legitimated in the nomenclature of Medical Science. It is the most enduring monument to his industry and research.

Surgical Anatomy. By Joseph Maclise, Surgeon. With sixty-eight colored Plates. Philadelphia, Blanchard & Lea, 1851.

Part V. and last of this admirable reprint, has just been issued by Messrs. Blanchard & Lea, and is now offered to the professional public.

In notices of the previous parts, we have called attention to the excellence of this work, and have recommended it to the

student of medicine, and practitioner, removed from the schools, as presenting a truthful series of dissections demonstrative of the relative anatomy of the principal region of the human body. From this candid expression, the present part does not incline us to swerve; it fully equals its predecessors in beauty and faithfulness of execution. It contains the conclusion of the demonstration of the urinary organs, and comprises in plates 63 and 64, deformities of the urinary bladder, the operations of sounding for stone, of catheterism, and of puncturing the bladder above the pubes.

In the commentary on this plate, there will be found one of the clearest descriptions of the mode of introducing the catheter, that we ever seen. Plates 65 and 66 illustrate the surgical dissection of the popliteal space and the posterior crural region. Plates 67 and 68, the surgical dissection of the anterior crural region, the ankles, and the foot. In bringing to a close our notices of the various parts of Mr. Maclise's work, we desire to express our conviction of its excellence, as regards both plates and commentary. That it is without faults, we do not pretend to say; but they are so few in comparison with its merits, that they can be readily forgiven. To the publishers also, our acknowledgments are justly due, for the liberal expenditure they have made upon it, as well as for the exceedingly low rate at which it is offered. With all these good qualities, we are confident it will find a place in every surgeon's library.

The Physicians' Visiting List, Diary, and Book of Engagements for 1852.

Messrs. Lindsay & Blakiston have just published a most convenient little book with the above title, containing blanks for twenty-five daily visits, memoranda, &c., for the use of physicians. With it in his pocket, the practitioner has a list of his engagements, and his day book, and diary. We commend it to the profession from practical experience, as the most complete thing of the kind we have ever seen.

A system of Operative Surgery, based upon the Practice of Surgeons in the United States, and comprising a Bibliographical Index and Historical Record of many of their operations during a period of two hundred years. By HENRY H. SMITH, M. D., Surgeon to the St. Joseph's Hospital, &c. &c. *Illustrated by numerous Steel Plates.* Philadelphia: Lippincott Grambo & Co., 1851.

We have merely had time to glance over this recent publication, the mechanical execution of which reflects great credit upon all connected with it. The illustrations are on steel, and beautifully colored. Of the text, we have not as yet had time to judge. In our next number we purpose to lay before our readers a critical digest of its contents.

Elements of Physiology, including Physiological Anatomy. By WM. B. CARPENTER, M. D., F. R. S., F. G. S., &c., &c. *Second American, from a new and revised London Edition. With one hundred and ninety Illustrations.* Philadelphia: Blanchard & Lea, 1851.

The Elements of Physiology of Dr. Carpenter is one of a series of manuals, published in England, and intended for the use of students more especially. Although it embraces, in a great degree, the scope of the other treatises by the same author, it cannot be regarded as a mere abridgment of them, being, so far as it goes, complete in itself. The present edition has been greatly improved, much of it having been re-written, particularly the chapters on the vital force, and those on generation, and the nervous system. Several new cuts are found in it, and the student will find it in every particular fully brought up to the existing state of the science. We commend it to him as one of the best elementary treatises on the subject.

THE MEDICAL EXAMINER.

PHILADELPHIA, NOVEMBER, 1851.

EXPLANATION.

In the editorial comments which appeared in the September number of this Journal, in reference to the recent personal controversy between Drs. Robertson of South Carolina, and Ramsay of Georgia, we expressed the opinion "that there were grounds for attributing the attack upon our correspondent to personal pique, growing out of a family feud." This opinion was derived from statements made to us in letters received from Dr. Ramsay. Since the appearance of our remarks, Dr. Robertson has addressed us a communication in which he repels the "imputation" alluded to. We feel it our duty to record this denial, though our convictions remain unchanged as to the original character of the difficulty in question.

NEW YORK MEDICAL TIMES.

Under the above title, the first number of a new Monthly Journal of Medicine was issued in New York, on the first of October last. J. G. Adams, M. D., is the Editor and Proprietor; and he announces that, in conducting it "while assistance from all quarters will be thankfully received, he designs to render it eminently a New York Journal, a reflection of what, in medical matters, New York does and thinks; a record of the proceedings of her Societies and Academy, of the cases of interest occurring in her Hospitals and Infirmaries."

The number before us is principally made up of valuable original matter, from Drs. Watson, Swett, Cocke, and other gentlemen connected with the New York Hospitals, and abundantly fulfils the editor's programme. He has our cordial wishes for the success of the '*Times*,' which certainly promises to be a most creditable addition to the periodical medical literature of the country.

MEDICAL DEPARTMENT U. S. ARMY.

A board for the examination of Assistant Surgeons for promotion, and of candidates for admission, will meet in New York on the 15th instant.

The board will consist of Surgeon T. G. Mower, president; Surgeons Cuyler, Stirecke, and assistant Surgeon Simpson, members. They will remain in session for two or three weeks.

MEDICAL SCHOOLS OF PHILADELPHIA.

The classes assembled at the various schools bid fair to equal, if not exceed, those of the last session, notwithstanding the many circumstances calculated to operate against them, in the shape of "hard times," short crops, &c.

OBITUARY.

DIED, in Carroll County, Miss., on the 18th of June last, Dr. J. H. FITTS, aged twenty-five.

This is the second death we have had to record within the last few months from among our private pupils. Dr. Fitts, during a residence of eighteen months in this city, had gained many warm friends by his uniformly correct and manly deportment. He graduated with distinction at Jefferson Medical College, and received the certificate of merit from the Philadelphia Association for Medical Instruction. We desire to record his estimable qualities, because the example of those who die young is often lost to those who would most profit by it.

LONDON MEDICAL EXAMINER.

We gratefully acknowledge the receipt of this excellent Journal, a notice of which had accidentally been omitted from our notices to Correspondents. It is among our most valued exchanges.

MEDICAL NEWS.

THE TENNESSEE HOSPITAL FOR THE INSANE, situated about six miles from Nashville, is nearly completed. It is, we learn from the Nashville Journal of Medicine and Surgery, of the castellated style of architecture, 325 feet in length from east to west, and in breadth across the centre, 98 feet. It is said to be very beautifully situated, with two hundred and fifty-five acres of ground and farm land attached to it. Dr. JOHN S. YOUNG is the Superintendent.

Drs. J. C. WARREN, of Boston, and MÜTTER, of Philadelphia, who have been absent during the summer months in Europe, have returned to the United States.

Dr. J. V. C. Smith, the Editor of the Boston Medical and Surgical Journal, has, we are glad to see, returned from abroad, and resumed his editorial duties. Dr. Smith's interesting correspondence with the 'Journal,' during his tour, was frequently noticed and quoted in the European medical journals.

Professor A. H. Buchanan, of the University of Nashville, returned from a European tour, in October last. Several pleasant and interesting letters were communicated by him, during his absence, to the Nashville Journal of Medicine and Surgery.

South Carolina and Dr. Clark. Complimentary to the Profession.—To prove that medical men do not always go unrewarded by those to whom important services may have been rendered, we give the following instance as an exception. The State of South Carolina has recently presented to her distinguished son, Dr. C. J. Clark, a gold medal, weighing two and a half oz., upon one side of which is a representation of the landing of Vera Cruz; and on the other, the South Carolina "Coat of Arms." This honor has been conferred in consideration of the valuable services rendered by Dr. Clark to her brave sons who fought and many of whom fell, upon the bloody plains of Mexico, in maintaining the honor of the State and in defending our common country. South Carolina knows how to encourage talent, and to reward true merit —and in this she has given us many noble examples worthy of her distinguished name.

We hope Dr. Clark will not feel envious when he hears in what manner we were rewarded for three months' services on the Rio Bravo, Mexico. Ours came from head-quarters—Washington city. In turning over to the Quarter-Master at this place the medicine and hospital stores in our charge, one or two silver-washed catheters were missing; these were promptly reported to head-quarters, and in due time a bill of $40 was returned to us, claiming indemnity for that which was loaned and used up in the service of the country.

From that day to this our thirst for military glory has been on the wane, and we wish henceforward to be regarded as an uncompromising advocate for the "Peace Congress."—*New Orleans Med. and Surg. Journal.*

Dr. Bennett Dowler.—Dr. Dowler, of New Orleans, author of numerous scientific papers containing original and ingenious experimental observations on various physiological subjects, has been appointed to

the Chair of Physiology and Pathological Anatomy, in the Memphis (Tenn.) Medical College. This institution has lately been reorganized, and a lecture-session is announced for the coming winter.

Death of Sylvester Graham.—Most of our readers in this part of the country are familiar with the name of this individual, who some years since made himself notorious in urging upon the community the system of light and exclusively vegetable diet to which his name was given. He died lately at Northampton, in Massachusetts, at the age of about 50. The Gazette, of that place, states that his health had been gradually failing for the last year, and he had suffered much from rheumatism in his hands and feet. "Post-mortem examination disclosed no disease in the system, which, in the opinion of the medical examiners, was sufficient to produce his death; and the immediate cause of his decease is thought to be the use, contrary to the advice of his physician and friends, in the extreme exhaustion of the system, of Congress water and a tepid bath."

Prosecution for Mal-practice.—A case has recently been tried in the Court of Common Pleas, in the city of Lowell, of a character similar to those mischievous prosecutions that for some years past have alarmed medical gentlemen, in various parts of the country, to such a degree that many have about concluded to let all surgical patients go unassisted in their afflictions. If by any combination of unforeseen constitutional or other circumstances, a fractured bone or a punctured wound is not immediately cured, the surgeon is at once driven to the wall by a prosecution for mal-practice, the object and aim of the prosecutors being to make to themselves mammon out of the spoils, even if they rob the practitioner of his honest earnings and ruin his reputation. It seems that, in the case alluded to, a woman cut her right thumb while paring apples. In consequence of the condition of the wound, which pained her, Dr. J. T. G. Leach, of that city, was called in for advice. From a careful analysis of the testimony in regard to the treatment, his course appears to have been perfectly judicious, and this was the opinion of very eminent medical gentlemen who were called before the court. Notwithstanding the weight of evidence would seem to have been strong enough to have sustained Dr. Leach, to our surprise, at least, the jury could not agree. The more we have reflected upon the testimony, the more we are astonished at the result. Of what value is evidence in courts of law, if it is to have no weight? Dr. Charles A. Savory, Dr. D. Mo.e,

Dr. Thurston, Dr. J. C. Dalton, Dr. Green, Dr. Parkman, and Dr. Balch, if we understand them, sustained Dr. Leech triumphantly.

At the Missionary Hospital, in China, in which Dr. Peter Parker, the American Surgeon, has distinguished himself by the performance of some of the boldest operations in surgery, before the people became enlightened and comprehended the value of his services he refused to operate till a bond had been executed, in which applicants agreed not to claim damages of him, should he be unsuccessful. It would perhaps be the course of prudence for surgeons among us to keep blank bonds on hand, to be filled up before commencing treatment, if the public continue to ask for their best endeavors and then prosecute them for damages should the result be unsuccessful.—*Boston Med. and Surg. Journal.*

Obituary.—Dr. Wheaton, of Providence, R. I., died lately in that city, at the patriarchal age of 90 years. "He was distinguished during his long life, for the virtues of a Christian, the acquirements of a gentleman, and the acquisitions of a scholar."

Dr. Reyer, chief physician to the Royal Hospital at Vienna, lately committed suicide by the use of chloroform.

Dr. Henry K. Burroughs died at Savannah, on the 13th of October. He had been Mayor of the city, and was highly esteemed.

Dr. Alpheus F. Stone, of Greenfield, Massachusetts, President of the Franklin County Medical Society, of that State, died on the 5th of September last, in the 74th year of his age. Dr. Stone had been in extensive practice for fifty years, and was greatly esteemed in his native State.

Dr. Oken.—We have just received intelligence of the death of the famous naturalist, Dr. Lorenzo Oken, whose theory of the Cranial Homologies effected a revolution in philosophical anatomy, and led the way to the admirable researches of our own Owen. The name of Oken is, in this country, most commonly associated with his "Physico-philosophy," a translation of which work, by Mr. Tulk, was published by the Ray Society. It abounds in admirable generalization, unfortunately immersed in much that is false and fantastic, and clothed in the cloudiest phraseology of German transcendental metaphysics. Oken's researches and speculations (for he was as practical as he was dreamy) extended over all departments of natural history. Of the value he set upon facts, and the industry with which he collected them, a lasting monument exists in the volumes of the "Isis," a vast library of

abstracts of the science of his time, founded and conducted by him as a periodical. Few men have had greater influence on European science than Oken. Until forced to quit Germany on account of his political opinions, he held a Professorship at Jena. Latterly, he was Professor of Natural History at the University of Zurich, in which city he died a few days since, at the advanced age of seventy-three years.—*Literary Gazette.*

The Late Dr. Kidd.—By the death of Dr. Kidd, formerly professor of Chemistry, and since 1822 Regius Professor of Medicine, the University of Oxford has just lost one of the most active of its men of science, who belonged, by their chief works and labors, to a former generation. Dr. Kidd did good service in his time, as his publications testify, in various departments of mineralogical, chemical, and geological research, and about ten years ago, his last appearance, we believe, as an author, he put forth some observations on medical reform. Dr. Kidd was one of the eminent men selected under the Earl of Bridgewater's will to write one of the well known "Bridgewater Treatises," and we believe it has gone through more editions than any work of the series. The subject was, "On the Adaptation of External Nature to the Physical Condition of Man." Together with the Regius Professorship of Medicine, to which the mastership of Ewelme Hospital, in the county of Oxford, is attached, Dr. Kidd held the office of librarian to the Radcliffe Library.

Death of Dr. Baudelocque.—This distinguished physician has lately sunk under a chronic malady, aged 55. He is well known to English readers as a writer on obstetrical subjects, and on scrofula. He was physician to the Hospital for sick children, and had one of the largest midwifery practices in Paris.

Coffinism.—Under the name of Coffinism, Thompsonism appears to be making some head-way in Great Britain. We find the following allusions to our old acquaintance, under its new name, in the *London Pharmaceutical Journal*, for September:

"Coffinism is another variety of quackery, addressed to a different class of persons, from homœopathy. There is no disguise or mummery in this system. It is an open and impudent repudiation of medical science, physiology, and anatomy. The entire code of practice is comprised in Dr. Coffin's book; the practitioners are shoe-makers, chandlers, mechanics, &c. The remedies are medicinal plants, some of which are powerful poisons. They are not administered in infinitesimal doses, but by

the tea-spoonful or pennyworth; and for the protection of the practitioners when inquests occur, it has been found expedient to establish a 'Defence Fund," to which all subscribe, and in the benefit of which each person participates when in trouble. During the past month a "Medico-botanic Demonstration" was made, occupying four days, during which time the votaries visited Dr. Coffin's Museum, Catlin's Museum, and Kew Gardens; they drank tea at Tabernacle Row, Finsbury; they assembled in Trafalgar Square, and proceeded "in procession through Pall Mall to the Crystal Palace, with appropriate banners, and headed by Drs. Coffin and Harle." The profits of the entertainment go to the "Defence Fund." This description of quackery is quite as formidable as the "Do-nothing" system. It is practiced among a class of persons who are less able to take care of themselves than the wealthy dabblers in globules, and it is gaining ground to an extent which must ultimately effect its own cure.

A mother thinks her child looks dull, she takes him to a Coffinite cobbler, who administers a tea-spoonful of lobelia inflata; the child becomes worse, the dose is repeated. The child dies, an inquest is held. Dr. Coffin comes forward with his "defence fund," the jury are made to believe that the death of the child may be attributed to the treatment of the medical man who was called in at the last extremity. The cobbler is acquitted, and returns to his practice, impressed with the conviction that if the child had taken another dose of his medicine the catastrophe would not have occurred."

Munificent Legacy.—Dr. Jecker, who has left various useful works on physiology and microscopal anatomy, has just died, and, by his will, gives the Academy of Sciences at Paris the sum of £8000, to found an annual premium, to be awarded to the author of the most useful work on organic chemistry.

Medical Periodicals in Egypt.—We have received the numbers for June and July of a very interesting monthly periodical, published at Alexandria, whose title is *Giornale Optamologico Egiziano.* This paper is written in Italian, and edited by Dr. Abbate; the size is but half a sheet, but the articles, both original and copied, are well selected, and there is no doubt but this journal might be made very useful, emanating, as it does, from a country where ophthalmic affections are unfortunately so frequent. In the June number there are some good remarks on staphyloma, myopia, and presbyopia, &c.; the former are continued in the number for July, with interesting articles on the good effects of valerianate of zinc and hyoscyamus in rheumatic ophthalmia, on the hygienic means to be used in Egypt to avoid affections of the eye, &c., &c.—*London Lancet.*

Was the Roman Army provided with any Medical Officers.—In a late pamphlet under this title Dr. Simpson describes a tablet discovered at Housesteads, in Northumberland (the ancient Borcovicus) one of the principal stations on the great defensive wall, reared in the second century by the Emperor Hadrian. From this monument, which was raised by his companions "to Anicius Ingenuus, Physician in Ordinary of Cohort the first of the Tungrians," we learn that more than one medical officer was attached to each cohort. Further evidence is also adduced by Dr. Simpson, rendering it probable that there were superior medical officers placed over the staff of the legions.

Study of Anatomy in Egypt.—At the time when Mahomet Ali was persuaded by Clot Bey to organize a school of medicine in Cairo, the old man consulted the council of the Ulama, or learned men of the orthodox sects, in regard to the legality of dissecting human bodies, for the purpose of anatomical knowledge. They decided that it would be repugnant to religion. However, he said nothing, and gave directions to his surgeon to proceed. He had the united force of Musselman prejudices and Moslem bigotry marshalled against him; but he was the pillar that sustained the entire fabric of Egyptian government, against whose orders no one dared raise the voice of remonstrance, however much they might growl over an infraction of the Koran. He lived long enough to have his bigoted subjects become familiar with dissections, and till the four orthodox sects of the Hanafees, Shafees, Màlikees and Hambelees, had lost their influence over the ignorant rabble of the metropolis. Anatomical pursuits are now conducted there on a proper scale, and under fewer restrictions than in several of these United States, where a physician and surgeon are required to understand anatomy in order to practice, and yet they are liable to prosecution, to fine and imprisonment, for doing precisely what they are required to do. Mahomet Ali was in advance of the age in his own dominions, and far wiser and more liberal than some of the enlightened christian legislators of these United States.—*Boston Med. and Surg. Journal.*

RECORD OF MEDICAL SCIENCE.

SURGERY.

Hydrastis Canadensis in Gonorrhœa. By Dr. D. M. McCann, M. D., Martinsburgh, Ohio.—As your excellent Medical Journal has for its object the diffusion of knowledge advantageous to the Medical profession, permit me to call the attention of the profession through its columns to the use of Hydrastis canadensis, (yellow root, orange root,) in gonorrhœa.

I am not aware that any of my brethren have ever used it in this affection, before myself. My experience, however, in the use of it, though not extensive, is yet sufficient to warrant me in soliciting a trial of it by those having more opportunity of testing its curative power than I have. I have used it in several cases in various stages of the disorder, and in *every case* with the most satisfactory results; more especially with males than females.

I was led to its use by noticing its well known sanative properties over inflammations of mucus and epithelial structures, such as aphthæ of the the mouth, &c. The ardor urinæ, and discharge of mucus, had been entirely suspended in every case in from twenty-four to seventy-two hours. In some cases, I used the balsam copaibæ, in others, injections of infusion of the hydrastis alone, but with about the same results, a perfect and *permanent* eradication of the disorder.

I have varied the strength to suit the case in its different stages, but as a general rule I have used about one drachm of the dried root to the pint of infusion—injecting a syringe full three or four times a day.

I hope that some of the profession will give this article a fair trial.—*Ohio Med. and Sur. Journal.*

About the time of our commencing the practice of medicine, ten years ago, our attention was called to the use of the infusion of yellow root as an injection in gonorrhœa, by a skilful and experienced physician of this city, Dr. U. E. Ewing. At his suggestion we employed it ourself, and with such good results, that we have continued, to the present time, to use it in cases in which astringent injections were indicated. A strong infusion of this root containing a small proportion of sulphate of copper in solution, forms one of the best injections for gonorrhœa we have ever used; and for some years after we had our attention called to it by Dr. E. we used it almost exclusively, preferring it to any injection that we had employed. Of late years, however, we have used the solution of chloride of zinc, not because of its superior efficacy, but simply because it is more readily and conveniently prepared. We have tried nearly, if not quite all, the injections we have seen recommended for gonorrhœa, and we have no hesitation in giving the two already mentioned the pre-

ference. With the infusion of yellow root alone, or containing sulphate of copper in solution, and the solution of chloride of zinc, we think all the good may be accomplished in the treatment gonorrhœa which can be gained by injections.

The formula of the infusion of yellow root, as directed by Dr. Ewing, which he has employed upwards of twenty years, is as follows:

Pulv. Hydrastis Canadensis,	i.
Aquæ Puræ,	f℥viij.
	M.

Digest for several hours and strain.

To this Dr. E. is in the habit of adding sulph. cupri ℈i. We have directed this injection repeatedly in confirmed cases of gonorrhœa and gleet, and our experience confirms the favorable report of its value, which we received from Dr. Ewing ten years ago.—*Transylvania Med. Jour.*

On the Pathology and Treatment of Varicocele.—In a thesis with this title, M. Prunaire (*Gazette Medical de Strasbourg,*) speaks of a new mode of treating varicocele by caustic. He also enters minutely into certain anatomical considerations calculated to throw light on the pathology of the disease. In the first place, he has taken the measurements of the right and left spermatic veins in fourteen cases, together with the comparative weight of the testicles on either side. In classing the subjects according to their ages, he finds that between the ages of 3 months and 2 years, there was a difference of from one to two centimetres in favor of the left spermatic vein; between the ages of 30 and 35 years the difference was from two to three centimetres. As regards the size of the testicles, the author has constantly found the left larger and heavier than the right.

A recent writer has given the absence of valves in spermatic veins as the cause of varicocele, but this the author refuses to admit, as he concludes from the observations of St. Hilaire, as well as from his own researches, that valves are present in these veins in the majority of instances; this, of course, suffices to vitiate the theory arising out of their presumed absence.

The treatment adopted by M. Prunaire is thus described:—The pubes being denuded of hair, the patient is requested to walk for an hour or two; he is then chloroformed. An incision is next made over the cord, the sheath is opened with the utmost caution, and the veins scrupulously isolated from the other structures; this being done, some lint is passed underneath them to prevent the contact of the caustic with the subsequent tissues, and the veins are daubed with Vienna paste. After a few minutes the caustic is sedulously removed by washing the part in a dilute acid solution, and the wound is dressed. The veins which have been touched shrivel up, and when the eschar falls, are found to be completely obstructed.—*Prov. Med. and Sur. Journ.*

New mode of treating Epiphora. By Mr. BOWMAN.—This plan consists in slitting up the canal from the punctum on the conjunctival aspect, so as to carry backwards the orifice at which the tears are received on to the mucous membrane near the caruncle; and Mr. Bowman finds that the tears are in fact taken up by the remaining portion of the canal, while the end towards the punctum is converted into a groove. For the cases of obstruction from injury or other cause he suggests a modification of this operation, by which the canal between the obstruction and the sac may be slit up for some way, so as to receive the tears at a new opening. The cases to which these new operations are applicable have been for the most part abandoned by surgeons as incurable.—*Medical Times.*

Unconsolidated Fracture of the Thigh successfully treated by Acupuncture. By M. LENOIR.—The rationale of the various plans of treatment which have been adopted, in order to prevent the formation of false joints, consists in the establishment of an inflammatory action in the fibrous tissue, situated between the bony fragments, and the consequent secretion of a secondary callus. One of the methods proposed has, in the hands of its inventor, M. Malgaigne, been unattended with success: we mean acupuncture. But the following case, communicated to the Societié de Chirurgie, by M. Lenoir, proves that this mode of treatment deserves some notice, even although it has not afforded similar results to M. Maisonneuvre. Much of the success obtained by M. Lenoir must, doubtless, be attributed to the many precautions observed by him.

Dupèchè, a carpenter by trade, aged thirty-three years, in falling from a height of fifty-two feet, fractured his right thigh. He was immediately conveyed to La Pitié, and placed under the care of M. A. Bérard. After fifty-four days of treatment, the patient began to walk with the assistance of crutches, when M. A. Bérard, in order to remove the stiffness which existed in the knee-joint, endeavored by force to extend the motions of this articulation; in one of these manœuvres the neck of the femur gave way, and the signs of the fracture re-appeared. The broken bone was again reduced, and an immovable apparatus applied to keep the fractured ends *in situ;* at the termination of a month the apparatus was removed, but the fracture had not consolidated, and the patient had himself conveyed home.

Six months afterwards, M. Lenoir took him into the hospital for the purpose of employing the treatment by acupuncture; but before trying this plan, he used all the means likely to insure success, and, amongst others, he had him placed on a mechanical bed, so as to maintain complete freedom from motion, even in attending to the calls of nature. As the fracture was oblique, and the upper fragment very sharply bevelled, and the fragments, by overlapping, occasioned a shortening of about two and a half inches, M. Lenoir had an apparatus, for maintaining extension, constructed by a carpenter, a friend of the patient. This apparatus consisted of a long box, nearly in the shape of the limb, and consequent-

ly wider above than below, but longer than it; it was about three inches deep, and was composed of three pieces of light wood closely united to one another; of these three splints, the external was eight inches longer than the others, which terminated at the junction of the thigh with the trunk; this longer portion had at its upper end a mortise intended to facilitate the employment of counter extension; to the lower end of this groove a kind of toothed wheel and axel was adapted, to which was applied a catch for the purpose of fixing it. This apparatus, lined with carded cotton, received the limb, the foot being covered with a gaiter of ticken furnished with a foot-strap; by means of this strap rolled round the wheel, extension was maintained by another strap well padded, passing along the fold of the groin, having the ischium as its *point d' appui*, and its ends fixed in the mortise in the outer splint of wood.

For several days nothing was done except to tighten the straps according as they became relaxed. At last, on the 12th of August, seven months and some days after the accident, M. Lenoir proceeded to insert the needles. At first he introduced four, each being four inches long, and furnished with a head. Their points were directed along the inner surface of the upper fragment, from below upwards; an interval of but half an inch being left between each needle. Contrary to his expectation, and although he passed them in as far as the heads, he met no obstacle to their introduction. This, doubtless, depended on the existence of an interval between the two fragments, the extension effected by the apparatus having reduced the fracture only in the direction of the length of the limb, and not transversely. The four needles remained *in situ* for six days; at first they excited redness of the skin, then a little pus appeared about them and rendered them moveable, and finally, a slight swelling occurred. These symptoms indicating that inflammation had developed itself, M. Lenoir withdrew the four needles; and, after having cleaned them, he re-introduced them higher up, following carefully the direction of the upper fragment, and leaving between them the same intervals as before. The same symptoms followed this second operation; at the end of five days the needles had become moveable, and were taken away; and the inflammatory action now appearing to be sufficient to produce union, the introduction of the needles was not repeated. The inflammatory swelling of the limb was treated by poultices, antiphlogistic diet, and cooling drinks; and when it was subdued, the two surfaces of the fragments were brought into closer proximity by means of small splints placed around the thigh, and tightened by two straps of leather, a practice previously employed by Amesbury. The apparatus was inspected daily, and tightened when necessary. At the end of twenty-three days, in order to ascertain how far consolidation had advanced, the limb was completely uncovered; it was found to have neither got out of shape nor undergone retraction; but when the hand was passed over the seat of the fracture, it still yielded; splints were immediately re-applied, the limb was replaced in its groove, and extension continued. No fresh examination was made until the expiration of thirty-five days from this

time, and then the callus was found to be sufficiently solid to justify the removal of the entire apparatus. Carefully measured, the limb was found to be rather less than eight-tenths of an inch shorter than that of the opposite side; the knee-joint was stiff, but the patella was still capable of transverse motion; the thigh and upper part of the leg were œdematous, but otherwise there was no apparent deformity at the seat of the fracture, and the callus was not very bulky. Lastly, the coxo-femoral articulation was capable of motion, and the patient was able to raise the limb by the unaided action of the muscles. As an additional security, he was advised to keep his bed, and, during a fortnight that he was confined to it, the œdematous swelling of the limb was treated by fomentations of aromatic wine, and by bandaging. At the end of that time he got up and walked, at first with the aid of crutches, and afterwards of a single stick; finally, he left the hospital cured, and M. Lenoir subsequently ascertained that on his return to his native district (Auvergne,) he had, during the entire following autumn, driven a plough, and that he now experiences no difficulty in the pursuit of field labor.—*Dublin Quar. Journal, from Bulletin Général de Thérapeutique*, Dec. 15, 1850.

Prophylaxis of Syphilis.—Dr. Langlebert announced to the Academy that he had discovered a substance capable of destroying the effects of the syphilitic virus. This preservative consists of a strong alcoholic solution of soap, having an excess of alkali. Dr. Langlebert had performed several experiments by inoculating with the poison of chancres, and then applying his antidote within about five minutes afterwards. The effects of the virus had in every case disappeared.—*Lon. Med. Gaz.*

Traumatic Tetanus successfully treated by Friction with Chloroform. By Dr. Morisseau, Physician to the District Hospital at La Fleche (Barthe.)—The patient was about forty years old, a man of good constitution. Eight days before admission, he had slightly wounded himself on the front of his leg, while at work with his pick-axe. The trifling wound had healed by the fifth day. On the sixth day tetanic symptoms manifested themselves.

The patient was at first treated at home, but the disease advancing, he was removed to the hospital. When first seen by Dr. Morisseau, the tetanus was fully developed; there was persistent contraction of the muscles of the jaw, the chest, abdomen, and back; the body was bent double every hour; deglutition impossible. The pulse small and slow; nothing particular was observable of other functions.

Friction was performed with four grammes (one drachm) of chloroform. This quantity was repeated three times during the day. The patient was placed in an acidulated vapor bath.

On the following day a considerable improvement had taken place. The patient had perspired freely; he had slept well which he had not done before, since the commencement of the attack. He had swallowed

a few spoonsful of liquid; the muscles were less rigid; convulsions shorter and less frequent.

The dose of chloroform was increased to twenty grammes, three times a day. This treatment was continued for five days with the best results; all the symptoms had disappeared on the sixth day. A sense of lassitude and debility alone remained, and these soon disappeared under suitable diet.

The editor of the *L' Union Médicale* adds to the above the following taken from the *Gazetta Medica Lombarda*: A laborer, twenty-eight years of age, was seized with tetanus two days after having lain on damp ground whilst he was in a perspiration. The patient was immediately subjected to the treatment usually adopted there, and which consists in frequent venesection. He was bled eight times in four days, once to the amount of twenty ounces; about a hundred leeches were applied to the parts that were painful, and other ordinary means were adopted. On the sixth day the patient was in a very serious state, when M. Tibaldi had recourse to frictions with ether in order to calm the muscular contractions. Two frictions were practised on the loins; venesection and half a grain of acetate of morphia was given. Whenever friction was applied, the action of the muscles was moderated. On the following day another bleeding to ten ounces, and frictions with ether on the neck and back. On the third day of this treatment the patient could sit upright. In two or three days more the patient was convalescent.—*Lon. Med. Gaz.*

New Method of Applying Collodion for producing Occlusion of the Eyelids.—The process of occlusion of the eyelids, by bringing them together and applying collodion over them, presents two inconveniences. If a drop of the collodion reaches the conjunctiva, it produces irritation always very painful, and especially troublesome if, as is generally the case, the membrane is already inflamed. In the second place, if it be desired to examine the eye before the collodion has spontaneously detached itself, it becomes necessary to remove it with ether or scissors—both delicate and irritating processes, often causing pain and apprehension to the patients.

M. Barrier, of Lyons, employs a process which avoids these difficulties. A thread is placed vertically on the upper eyelid; a small piece of fine linen is then dipped in collodion, and placed on the lid, a little above the root of the eyelashes, so as to fasten down the thread. The same thing is done on the lower lid. To keep the lids closed, it is only necessary to tie the threads in a knot or bow; and it is quite easy to open or separate the eyelids.—*Annales d' Oculistiques*, as quoted in *Gazette Médicale*, August 16, 1851.

Extirpation of a Voluminous Bronchocele. By M. Roux.—M. Roux presented, some time ago, a patient of his to the Academy of Medicine, from whom he had successfully removed a large bronchocele. The man's age is about thirty-five, and the tumor, at first very small, had been in-

creasing, during the last fifteen years, to the size of two fists, and lay principally on the left side of the neck. The swelling was somewhat hard, almost immoveable; and seemed firmly attached to the larynx. The patient was extremely anxious for its removal, and M. Roux, after some hesitation, consented to operate. The incision was made in a longitudinal direction, and ran from the os hyoides to the sternum; M. Roux found it easy to enucleate the growth, with the precaution, however, of tying the thyroid arteries and some venous trunks as they came into view. When the tumour was almost completely detached, the pedicle, by which it was still connected with the neck, was tied, and then divided in front of the ligature.

The only phenomenon worthy of attention, which was noticed during the operation, was a fit of dyspnœa, after which the patient experienced an almost complete aphony; this lasted some time after the operation, and even now there is much hoarseness left. M. Roux accounts for this circumstance by attributing it to the division of the anterior laryngeal nerve. The patient was operated on two months ago, and the wound is now perfectly cicatrized. The tumor weighed about nine ounces and a half; it measured nine inches in circumference, and about seven in its transverse diameter. M. Velpeau was afraid that M. Roux's example would be too readily followed by other surgeons under less favorable circumstances, and thought the operation very dangerous. At the meeting of the 24th of September, M. Velpeau himself brought forward another case of extirpation of the bronchocele, which was performed by M. Cabaret, of St. Malo; this was successful, as well as a third undertaken by M. Hutin. Some discussion arose as to the propriety of giving the name of goître to tumors arising *on* the thyroid body, as well as to enlargement of that gland itself. M. Sédillot contended that the appellation ought to be confined to enlargements of the thyroid gland; Messrs. Velpeau and Roux opposed that opinion.—*London Lancet.*

Treatment of Scabies.—M. Bazin, physician to the Hôpital St. Louis, of Paris, published in July, 1850, several cases of itch cured in a few days by frictions with the sulphur ointment all over the body. The same physician confirms, in *L'Union Medicale* of November 9, 1850, the efficacy of the treatment, by stating,—"The patients who formerly left the hospital after twelve or fifteen days only, and very often came back with a relapse of the disease, are now cured in two or three days." But this is not all, for M. Bazin, finding out that some patients have an insurmountable dislike to sulphur, was induced to try several ointments prepared with essential oils—as those of lavender, thyme, rosemary, and likewise turpentine and mercurial ointment. None of these were effectual. He then had the idea of trying unmedicated axunge of oil, and found it answer remarkably well, six frictions during three days being sufficient.

It will be recollected that Mr. Taylor, surgeon to the Clerkenwell Infirmary, published a book some months since (see The Lancet, October 12, 1850, p. 418,) wherein he advocates frictions of a like character for

the cure of typhus fever, scarlatina, &c. It would be highly useful if frictions, with simple unctuous substances, were more extensively tried in the diseases spoken of by Mr. Taylor and M. Bazin. The ease with which the remedy is obtained, and the little risk which is incurred by its use, would render it inestimable if found efficacious, especially as regards the treatment of the poor. M. Bazin has likewise tried a chamomile ointment, which cures the itch in three frictions. It is composed as follows: Powder of fresh chamomile, white oil, axunge, of each sixteen ounces. M. Bazin proposes, therefore, in ordinary cases, that the sulphur ointment be used, (sublimated sulphur, very fine powder, of each two drachms; one yolk of egg; olive oil one ounce and two drachms and a half,) in exceptional cases, either three frictions with the chamomile ointment, or six with the simple oil and axunge.—*Ibid.*

Observations on Nitrate of Silver Stains of the Conjunctiva. Case of Absolute Blackness. By JAMES VOSE SOLOMON, M. R. C. S., Surgeon of the Birmingham Eye Infirmary.—The application of a solution of nitrate of silver, if long and injudiciously applied to the conjunctiva of the eye, produces a discoloration which is indelible. The sclerotic conjunctiva becomes of a dusky brown, or of an olive color; the palpebral linings, more particularly of the lower lid, assume a brownish or livid hue, or, as will be presently shown, become black; the sulcus between the inferior lid and globe is more deeply dyed than the other parts. In the majority of cases the conjunctiva of the superior lid retains its natural color. In a few rare instances the salt becomes incorporated with ulcers of the cornea, forms a subchloride of silver, and perpetuates one or more black lines in their cicatrices.

A still more uncommon, and I believe hitherto unrecorded change of color, consists in absolute blackness of the conjunctiva, an instance of which, the only one that has ever come under my notice, is probably of sufficient interest for publication in your journal.

Case.—A young woman, aged 29, came from a small town in Radnorshire to consult me for a dimness of vision.

Both corneæ were extensively covered by opacities, which were irregularly streaked with black lines. The caruncula lachrymalis and tarsal borders were of a jet-black color, giving the appearance, at a cursory glance, of soot or dirt settled on those parts. The palpebral conjunctivæ were smooth, and in color not quite so black as their margins. The sclerotic conjunctiva presented a deep olive color. I found on inquiry, that she had, at one time, suffered from strumous ophthalmia, for the cure of which a strong ointment and some drops had been prescribed and freely used. These applications had been continued for three or four months.

The black streaks which traversed the corneal opacities, and the olived sclerotic conjunctiva, decisively indicated the nature of the other discolorations.

There is a much greater susceptibility to these stains in some individuals than in others. They are more common to adults than children; possibly because ophthalmic disease among the latter is for the most

part either of the strumous or purulent kind, in both of which the surface of the eye and its appendages are continually bathed in secretion.

If we excise a portion of discolored sclerotic conjunctiva, a white cicatrix is formed, indicating that the sclerotic maintains its natural color.

At present we are unacquainted with any means for removing the stains under consideration. Our obvious duty is to prevent their occurrence by vigilant attention and care. This may be accomplished by prescribing the preparations of nitrate of silver in short and intermitting courses, and by frequently noting the condition of the lining membrane of the inferior palpebra. In public ophthalmic practice, it would be well if the solution were not dispensed in larger quantities than two drachms at one time.

Since writing the above, a man 60 years of age, who has been all his life a martyr to rheumatism, has become my patient at the Eye Infirmary. The right globe is collapsed; the left eye retains some vision; it has been repeatedly inflamed; the iris is of a dull leaden color, and convex towards the cornea; the pupil is puckered, adherent to the lens, and filled within a third of its area by opaque lymph (artesia irridis imperfecta.) Near the centre of the cornea is a leucoma.

Fifteen or eighteen months ago, he for the first time consulted a surgeon, who prescribed caustic drops, which he has ever since applied. The conjunctiva of the inferior palpebral sinus is of a greenish black color. The inner surface of the superior lid has lost somewhat of its natural polish; a few black drops assume an arborescent shape near the superior punctum; a light brown and well-defined narrow stripe extends along the concave aspect of its tarsal cartilage.

I have cited this case to show the impropriety of allowing patients to use the preparations of lunar caustic *ad libitum;* and as an interesting example of how well the superior lid escapes serious change of color, even in the worst and most neglected cases. It also illustrates the destructive character of uncontrolled rheumatic ophthalmia.—*London Medical Times.*

MATERIA MEDICA AND THERAPEUTICS.

Medical Properties of the Scullcap, (*Scutellaria laterifolia.*)—Dr. Hunton, of Hyde Park, Vt., speaks very highly of this indigenous plant, as a remedy in hysteria, chorea, and other nervous diseases. The S. *galericulata,* or *European scullcap,* which also grows wild in this country, possesses, he says, similar medicinal properties and is less disagreeable to the taste. He also considers the Scutellariæ to be among our most valuable vegetable tonics.—*Abridged from N. J. Medical Reporter, Oct.* 1851.

Maguey, or Agave Americana, as a Remedy for Scorbutus.—The expressed juice of the Agave Americana, the American Aloe or Maguey,

as it is termed in Mexico, has lately been used with the greatest success among the troops at Fort McIntosh, in Texas, as a remedy for Scorbutus. Dr. G. Perin, Assistant Surgeon U. S. A., reports several cases treated with the Maguey, which go to show it to be greatly superior to other remedies in the disease in question. A notice of the Maguey is to be found among the unofficinal articles in the U. S. Dispensatory. It is indigenous in Texas, and, Dr. Perin thinks, also in New Mexico and California. In Mexico, it grows in great abundance, and is the plant from which the favorite drink, "pulque," is made.

"The manner in which it is used is as follows, viz. :—The leaves are cut off close to the root, they are placed in hot ashes until thoroughly cooked, when they are removed, and the juice expressed from them. The expressed juice is then strained, and may be used thus, or may be sweetened. It may be given in doses of f.ʒij. to f.ʒiij. three times daily.

It is not disagreeable to take, and in every instance it has proved to agree well with the stomach and bowels.

After the leaves have been cooked, the cortical portion near the root may be removed, and the white internal portion may be eaten ; it appears to be a wholesome and nutritious food. Dr. P. has seen muleteers use it in this way, and they seem to be very fond of it. He has been informed, upon good authority, that several tribes of Indians in New Mexico make use of it in the same manner. The use of the leaf in this way, he believes, will ward off most effectually incipient scorbutus." —*Abridged from N. Y. Journal of Medicine*, September 1851.

Digitaline.—Some highly interesting researches on *digitaline*, the active principle of digitalis, have been recently made in France, by MM. Quevenne and Homolle. The following are the chief points of interest which they present:—

" Digitaline is soluble in small quantity in the serum of the blood, without producing in it any apparent change. The proportion dissolved appears to be the same as in water. It is dissolved also in filtered gastric juice. Digitaline exerts no action upon litmus. It is dissolved also in small quantity in water; and in all proportions in weak or concentrated alcohol. *The characteristic and distinctive property of digitaline is, to be colored of an emerald green by concentrated hydrochloric acid, forming a turbid solution.* Digitaline belongs to the class of immediate neutral principles; it combines neither with acids (the tannic excepted) nor with alkalis.

"To be assured of the *identity* or of the *quality* of digitaline, an important and capital point in a therapeutical view, MM. Homolle and Quevenne have paid attention to the different degrees of bitterness of this substance; for they state that its degree of bitterness is incontestably a measure of its degree of energy. To succeed in this test, the following plan is to be adopted: ' One centigramme of digitaline is dissolved in two grammes of alcohol, and the mixture is progressively diluted with water, until the complete disappearance of the bitter taste. If the

digitaline is good, this quantity will require the employment of two *litres* of water.' This method of appreciating the intensity of the taste of bodies, employed already by other observers, to judge of the richness of certain medicinal preparations, has been considered by MM. Homolle and Quevenne as proper for enabling them to obtain digitaline always identical with itself. This test is the more indispensable, because, in conforming rigorously to the mode of preparation just described, no one can be certain of having always the same product. Digitaline, except in its action on the animal economy, does not possess, unfortunately, any essential property by which we can positively recognise its purity. It does not crystallise, and does not form any crystallisable combinations; we can therefore never affirm that it has been obtained sufficiently pure, or that it has not been mixed. Let the person who prepares digitaline, therefore, be well acquainted with the fact, that this product does not offer any suitable proofs of its purity, except inasmuch as, subject to the experiment of dilution, it gives the same result as a *type* of acknowledged purity. Let the physician be also warned that digitaline does not constitute a medicine of such a certain identity that he should neglect a great degree of prudence in its use; a prudence which, besides, is demanded by the extreme activity of this new therapeutic agent.

"MM. Homolle and Quevenne having thus succeeded in obtaining digitaline in the state which they call *identical*, it remained for them to determine what was the pharmaceutic form for giving it, under the quadruple relation of *safety*, *convenience*, *good preservation*, and *easy administration*. The solution of this problem was the more important, because the product under consideration possesses a very great degree of activity, so that it ought to be administered only in milligrammes, or, in fact in an *infinitesimal* dose. Among the different pharmaceutical forms considered by MM. Homolle and Quevenne, the pilular form is that to which they have given the preference. 'The variety,' say these authors, 'which appears to us the best, is that of little sugar-plums, in which the active matter is enveloped in a layer of sugar, so that the patient, by reason of their very small size, can swallow them easily, without mastication, and therefore without any other perception than that of the sugar which covers them.' These sugar plums are called granules by the authors, and each contains a milligramme of digitaline; and it appears that this mode of administration preserves the powers of the drug to a period of which MM. Homolle and Quevenne have not ascertained the limit.

"As regards the physiological and therapeutic action of digitaline, one of the authors made a series of experiments on himself, and his exemplary exactness in recording the results is warmly eulogised by the reporters. From the analysis of the first six trials, undertaken in the course of the years 1842, 1843, 1847, 1848, 1850, it results that the *medium* of the diminuition in number of the pulsations of the heart and arteries has been about four pulsations *during*, and four *after*, the administration of the medicine. Experiments made on two dogs proved that, in one, the pulse was lowered from 59 to 51, and that in the other, from 87 to 69, by the administration of minute doses of digitaline. As to the

comparative efficacy of the preparations of digitalis hitherto employed, and of digitaline, MM. Homolle and Quevenne leave this point to be finally determined by clinical experience; but they think that their own observations, and the works published up to the present time, lead to the belief that the question will be resolved in favor of digitaline; and they quote the authority of MM. Hervieux, Strohl, and Sandras, who have all employed the digitaline in their practice with most happy results. M. Hervieux states, that one of the circumstances which plead most in favor of digitaline, is the facility of apportioning the dose; for, while this can be done in the case of the preparations of digitalis only by a very rough approximation, it can be accomplished in the case of digitaline with a mathematical rigor. M. Sandras declares, that he has never met with the inconvenience attributed to digitalis, while he has employed digitaline; the latter has appeared to him to be easy to take, and easy for the patient to bear; its effect has been perfectly fixed and regular, according to the doses in which he prescribed it. Some clinical observations made by MM. Homolle and Quevenne are then related, but we cannot say either that the cases seem to be well chosen, or the results accurately noted; and the indiscriminate manner in which the digitaline was prescribed, is not to be commended. In the first case, for instance, there was a 'puerperal affection,' but we are not told what was its nature; in the second, there was an 'affection of the heart,' and a 'profound disturbance of the circulation;' in the third case, there was hypertrophy of the heart, with 'lesion of the orifices;' in the fourth case, there was 'profound perturbation of the cardiac circulation;' all these terms are far too vague for the present advanced state of science. Again, the digitaline was given in the seventh case for cyanosis, from persistence of the foramen ovale; and in the sixth, it was given in large doses for anasarca with albuminous urine. In our humble opinion, neither of these diseases would justify the use of digitalis in any form.

"The following statement by the authors is of extreme importance, and completely accounts for the frequent uncertainty which attends the employment of digitalis in medical practice. 'We have been able,' say MM. Homolle and Quevenne, 'to ascertain, when we have procured our specimens of digitalis, that, in the quantity which existed in 1847 on the Place de Paris, there was about a fourth part well dried, a fourth of middling quality, and half which was badly dried and manifestly bad. It is evident that this last and considerable fraction was not thrown away; and, as digitalis has only a medical use, we are obliged to admit that it has been consumed by the sick.'"—*London Journ. of Medicine.*

OBSTETRICS.

Hernia of the Ovary mistaken for an Encysted Tumour—Extirpation—Death. By M. EVERSANT.—A girl, eleven years of age, came into the hospital to be under the care of M. Eversant, having a tumor in the left labium. Her parents had observed it when the girl was a year old, but it had never caused any trouble till eighteen months pre-

viously, when it began to be painful, and made the patient walk lame. The tumor was very moveable, more moveable than a cyst. It was easily pushed from the inguinal ring to the lowest part of the labium—like a testicle in the scrotum. It was of the size of a small nut, painful on pressure, and in one point fluctuation could be perceived.

It was diagnosed to be an encysted tumor, and it was resolved to extirpate it. An incision was made in the centre of the labium, and the dissection carefully continued layer by layer. A cord similar to the spermatic cord, and containing part of the fallopian tube, was arrived at and tied. It was then cut across below the ligature, and the ovary removed along with the cord attached.

The girl shortly took peritonitis, and died on the third day after the operation.—*London Monthly Journal from Gazette de Hôpitaux*, 24th May 1851.

Case of Inversion of the Vagina coming on during Labor. By Dr. LAMBERT.—The patient was a laboring woman. During the last six months of her third pregnancy she suffered from prolapsus of the vagina whenever she was working at out-of-door labor. The swelling thus produced attracted her attention, but did not alarm her, as it disappeared when she lay down in bed.

When labor came on, the tumor again appeared between the limbs. The midwife in attendance finding the labor tedious, and ignorant of the nature of the case, recommended the woman to make the most of her pains, and ordered her a vapor bath. The only apparent effect of this advice was the increase of the tumor to double its former size. When Dr. Lambert arrived, he found it projecting from the vulva, of the size of the two fists, of a blueish-red color, round, wrinkled, and of considerable consistence. At its lower extremity was an opening through which the finger could be introduced to the os uteri.

Dr. L. recommended rest in the horizontal posture, with the pelvis a little elevated, cold applications to be made to the tumor, and slight pressure applied to replace it during the intervals between the pains. After considerable delay the tumor was reduced, and the woman delivered with the forceps. She made a good recovery, and the swelling has never returned.—*London Monthly Journal from Revue Med. Chir.*, April 1851.

On Kiestein. By Dr. VEIT.—In consequence of the discrepancy of opinion which prevails among observers as to to the value to be attached to the appearance of the urine termed Kiestein, as diagnostic of pregnancy, Dr. Veit has, during a year and a half, been conducting a series of experiments at the Halle Lying-in-Institution. He has examined for this purpose the urine of 10 men, of 4 non-pregnant females, and of 48 women in various stages of pregnancy. He comes to the same conclusion as Höfle (*Chemie und Mikroskop am Krankenbette*) and, recently, Lehmann, vix., that the so-called pellicle of Kiestien is no peculiar matter at all, and is not of the slightest value as a sign of pregnancy. In urine of both non-pregnant and pregnant women, pellicles are formed,

containing vibrones, and frequently the triple phosphate; the chief difference between the respective urines being, that in that of pregnant women, alkaline, and in that of non-pregnant women, acid, reaction more frequently manifests itself. This may in some measure depend upon the greater concentration of the urine in pregnancy, and the larger proportion of mucus mixed with it, as a consequence of the changes induced in the condition of the mucous membrane of the bladder by the passive hyperæmia of that organ during pregnancy. Persons partaking of a more nitrogenous diet than did the poor pregnant women whose urine was examined, might furnish different results in this respect.—*Brit. and For. Review, Oct.* 1851, *from Zeitsch. für Geburt.*

Compression of the Aorta in Uterine Hæmorrhage. By M. Chailly Honore.—M. Chailly-Honoré considers that this practice is not resorted to so frequently as from its merits it deserves to be; and believes, that had it been employed in one or two cases in which transfusion has been lately performed, it would have rendered that *dernier ressort* unnecessary, or would have enabled it to save life when employed. Rudiger employed compression so long back as 1797; but Ulsamer first advised its being applied through the wall of the abdomen in place of through the uterus. The practitioner, standing at the left side, passes his right hand between the uterus and intestines, seizes the vessel between the index and medius finger, fixing it firmly against the vertebral column, and pressing on his right with his left hand. If in 13 cases in which this practice has been resorted to, half the women died, this arose from its being deferred until they were *in extremis*, and all other means had failed. To these cases M. Chailly opposes 18 others, occurring in his own practice, and among which only one woman died, in whom also the application had been too long delayed. In some of these, compression was maintained for two hours without inconvenience. In the former series of cases the compression was delayed too long, and employed without rule, confidence, or patience. In the latter it was resorted to in time, and methodically continued. Of course the practice is not advocated as curative, but as a means of gaining time in an emergency, wherein time is everything.—*Ibid, from Bull de l' Academie.*

PATHOLOGY AND PRACTICE OF MEDICINE.

On Chronic Vomiting, as symptomatic of Disease of the Kidneys.—Dr. Cathcart Lees, of the Meath Hospital, Dublin, reports in the Dublin Quarterly Journal of Medical Science, for August, 1851, several cases illustrative of the connection between chronic vomiting and disease or irritation of the kidneys. He remarks:—

"Nausea and vomiting are very constant occurrences towards the latter periods of chronic degeneration of the kidneys, but as they are met with in most cases of irritation of the organ, no matter from what

cause, whether it be simple acute nephritis, the mechanical irritation of a calculus, or gradual obstruction of the tubes from the fat, or any other form of deposit, we cannot establish any positive diagnosis from its occurrence. As to any degree of certainty with regard to even the seat of the disease, derivable from peculiarities in the times of vomiting, or in the nature of the matters vomited, I am not sufficiently prepared to speak positively. In two of these cases the patients always vomited early in the morning, previously to getting up, or to the taking of any food. I at one time thought that this might be a means of diagnosing vomiting depending on disease of the kidney from other forms of vomiting, but further experience has satisfied me that this rule does not hold good. We must, therefore, take into consideration all the other circumstances of the case, the history, age, sex of the patient, and particularly the situations to which pain is referred; but even with the most careful examination we shall often be puzzled, particularly in cases where we suspect the brain may be the cause of the vomiting, and yet where the character of the pulse (as occasionally happens) does not afford us sufficient indications, nor have we any other symptoms referable to it, or indeed to any organ in particular, to account for the frequent vomiting."

"As to the treatment of these cases of chronic vomiting, if it occur early in the morning, when the patient is fasting, I have found the most successful plan to be that of making him take some light kind of food before getting up, remaining quiet for a short time afterwards. If it occurs at an early period of the disease, and particularly if pain in the loins is complained of, or even a sensation of weight, three or four ounces of blood taken, by cupping, from that region, affords great relief. I have seen, in some cases, most satisfactory results from the use of equal parts of boiled milk and lime water, given frequently during the day, particularly when diarrhœa was present. In other cases, one, two, or three drops of hydrocyanic acid, combined with three grains of bicarbonate of soda, repeated every three hours, and given immediately before food or drink is taken, proves useful. Creasote, in doses of one or two drops, frequently repeated, is also often of service. In one very bad case, lately admitted into the Meath Hospital, that of a young girl laboring under general anasarca, with constant vomiting and severe diarrhœa, much benefit was derived from the liquor ferri pernitratis, in five-drop doses, four times a day. Occasionally a blister over the stomach, a little brandy, or from twenty to thirty drops of Hoffman's anodyne liquor, will check the vomiting. Some practitioners have recommended the use of opium, but I have not used it, in consequence of the tendency to head symptoms which exists in all cases where the structure of the kidneys is deranged; and as, in many instances, it is difficult to decide whether the symptoms are caused by mere mechanical irritation, or obstruction in the substance of the kidney itself, or whether they depend on the general poisoning of the system, from the retention and circulation in the blood of urea and other excrementitious substances, which ought to pass out of the system with the urine."

On Cod Liver Oil in Phthisis. By Dr. Walshe.—The following conclusions as to the value of the cod-liver oil are taken from the author's recent work on "Diseases of the Lungs." He states:

1. That it more rapidly and effectually induces improvement in the general and local symptoms than any other agent.

2. That its power of *curing* the disease is undetermined. I mean here by curing the disease, its power of causing, along with suspension of progress, such change in the organism generally as shall render the lungs less prone to subsequent outbreaks of tubercles, than after suspension occurring under other agencies.

3. That the mean amount of permanency of the good effects of the oil is undetermined.

4. That it relatively produces more marked effects in the third than in the previous stages.

5. That it increases weight in favorable cases with singular speed, and out of all proportion with the actual quantity taken; that hence it must, in some unknown way, save waste, and render food more readily assimilable.

6. That it sometimes fails to increase weight.

7. That in the great majority of cases where it fails to increase weight, it does little good in other ways.

8. That it does not relieve dyspnœa out of proportion with other symptoms.

9. That the effects traceable to the oil in the most favorable cases, are: increase of weight, suspension of colliquative sweats, improved appetite, diminished cough and expectoration, cessation of sickness, with cough, and gradual disappearance of active physical signs.

10. That in some cases it cannot be taken, because it disagrees with the stomach, impairing the appetite (without itself obviously nourishing,) and causing nausea, or because it produces diarrhœa.

11. That in the former cases it may be made palatable by association with mineral acid, and in the latter prevented from affecting the bowels by association with astringents.

12. That intra-thoracic inflammations and hæmoptysis are contra-indications to its use, but only temporarily so. I have repeatedly given the oil within a day or two after cessation of hæmoptysis, without any return taking place.

13. Diarrhœa, if depending on chronic peritonitis, or secretive change, or small ulcerations in the ilium, is no contra-indication to the use of the oil; even the profuse diarrhœa caused by the ulceration of the large bowel, is not made worse by it.

14. That the good effects of the oil are, *cæteris paribus*, directly as the youth of those using it—a singular fact, which probably may one day (when the textural peculiarities of youth are better understood,) aid in giving a clue to its mode of action.

On the Theory of the Formation of Valvular Diseases of the Heart. By John Simon, Esq., F.R.S.—Mr. Simon regards fibrin not as the nutritive material of the blood, but, with Zimmerman and other phy-

siologists, as the result of the waste of the tissues, or the decay of the blood itself. We may ask, if this is so, why is the quantity of chyle greatest in the thoracic duct, having appeared gradually during the progress of the chyle from the lacteals? No doubt many evils result from excess of fibrin in the blood, as fibrinous concretions in the spleen, liver and kidneys. Mr. Simon even supposes the fibrinous vegetations, on the valves of the heart, so often found in acute rheumatism, and attributed to endocarditis, are owing to this cause; and he asks the important question—How do those valve diseases originate? He answers it as follows:

The general opinion, which till very lately has been unquestioned, is, that the lining membrane inflames, and pours out lymph, (just as the pleura or pericardium might do,) and that thus these vegetations are true *excrescences*, which have arisen in an inflammatory exudation.

Now here, on the threshold of the subject, a doubt occurs—Is the lining membrane of the arterial system susceptible of inflammation?

"Inflammation," in the language of the schools, "consists in an increased action of the bloodvessels of a part." Without pledging ourselves for the accuracy of this definition, we may use it in the present instance as a rough criterion of inflammation; at least negatively. No part can be said to inflame, in the ordinary sense of the word, which has not vessels of its own. You cannot talk of inflammation of the hair or nails. What, then, are the bloodvessels of the lining membrane of the arterial system, which this theory supposes to be the seat of an increased action? That portion of an artery which we term its inner coat, has no bloodvessels of its own, nor do those of the middle or contractile coat (which are derived from the so-called *vasa vasorum*) penetrate to a sufficient depth to influence materially (if at all) the nutrition of the lining membrane.

In the Museum of the College of Surgeons there is a preparation of Mr. Quekett's (an injection done, as all Mr. Quekett's are, with admirable success), which shows how very much the *vasa vasorum* fall short of reaching the lining membrane of the artery. And, if you will but think for a moment, what should *vasa vasorum* do there? what could they convey more fit for the nutrition and growth of the membrane than what is already there?—than that blood, namely, which is already washing over it incessantly and profusely.

And again, gentlemen, reflect on this: the lining membrane of the artery and of the valves has an epithelium; wherever epithelium grows, the old cells drop off in a direction opposite to that whence the new ones derive their materials of growth. Just as our scales of epidermis drop from the surface of our bodies, being nourished and renewed from within, just so, if the epithelium of an artery were renewed from without (*i. e.* by *vasa vasorum*,) the old scales, as fast as they became detached, would drop into the interior of the vessel; and though, no doubt, their decay is very slight, and the number that might thus pass into the circulation, and presently obstruct the capillaries, would be very small, still it would be essentially a clumsy arrangement.

From a variety of reasons, it seems almost certain that the ordinary

nutrition of the lining membrane of the circulating system is derived directly from the blood with which it has contact; and that its morbid changes depend—not on any inflammatory condition due to the *vasa vasorum*, but on those humoral changes, those variations in the qualities of the blood, by which it is more immediately and more certainly affected than any tissue of the body.

On these grounds there would be great *primâ facie* difficulty in believing that the endocardial deposits could be of inflammatory origin. But this is not all; for if they were inflammatory exudations, why should they be so peculiarly limited to projecting or uneven surfaces of the lining membrane? And why should they evince so decided a preference for the *left* side of the heart? Both sides of the heart, and all points of each cavity, are, (one would think) equally exposed to the causes of inflammation; the coronary arteries supply both ventricles of the heart indifferently, and we well know that acute *peri*-carditis pays no respect to the grooves and septum of the heart; it traverses all such lines of demarcation, injects the blood-vessels of right and left side alike, and covers ventricles and auricles equally with its dense inflammatory exudation. On the supposition that these vegetations are inflammatory effusions from the membrane, I should be quite unable to explain why they should almost entirely confine themselves, as they do, to the valvular apparatus; and why their predilection for the left side should be so great, that the right is very rarely affected—perhaps never, except where the left has first suffered, and where the disease has been of such extreme intensity, that even its weaker affinity for the right side has been able to manifest itself.

The opposite doctrine is the more tenable one. I believe that the origin of these vegetations is directly humoral; that they arise as fibrinous precipitations from an overcharged solution; the valves encrusting themselves with fibrin, just as a stick in certain streams coats itself with a calcareous envelope; and that the preference shown for the left side of the heart admits of explanation by reference to the peculiarities of its contents—the new-made arterial blood.

You will observe that this theory involves the supposition, that arterial blood is more prone than venous blood to precipitate its fibrin, either as containing more of it, or as containing it in some more separable form.

Not wishing to leave this matter of uncertainty, I have experimented on the subject. I have carried a single thread, by means of a very fine needle, transversely through the artery and vein of a dog, leaving it there so that it might cut the stream; and I have done this repeatedly, sometimes in the femoral vessels, sometimes with the carotid and jugular, sometimes with the aorta and cava. I have suffered the thread to remain during a period of from twelve to twenty-four hours. My experiments have given me as a uniform result, that the arterial blood with the utmost readiness deposits its fibrin on the thread; the venous blood with the utmost reluctancy. And in most of my experiments, the thread, where it traversed the canal of the artery, presented a very considerable vegetation on its surface (exactly like those we are talking of on the valves of the heart;) a vegetation sometimes as large as a grain of wheat;

always of a pyramidal shape, with its apex down-stream, and its base attached to the thread. In the artery, one might say that the thread whipped the blood, just as one whips blood in a basin to get the fibrin out of it; but with this trifling difference, that, instead of the rod beating the fluid, the fluid ran over the rod and precipitated its fibrin there. In the vein the thread seemed to operate no way but obstructively; never coating itself with fibrin, but sometimes delaying or stopping the circulation with a voluminous black clot, chiefly collected on that side of the thread remotest from the heart. Accordingly, the general statement and rationale of the matter appears to be as follows: The disease in which these deposits are so frequent is one of intense over-fibrination of the blood, and one in which almost certainly there are other conditions, besides *quantity*, making the fibrin easy of precipitation; the left side of the heart has preference, because it is the arterial side, and because arterial blood, as we have seen, readily parts with its fibrin; the valves, and particularly their streamward surfaces, are chosen for the deposit, because their position exposes them chiefly to the friction of the current; so that the whole curious selection of site for the deposit resolves itself into the concurrence of two conditions, which are fulfilled in that one spot of the vascular system—namely, the greatest chemical tendency to the deposition of fibrin, with the greatest mechanical facilities for its entanglement.

In introducing this subject, I mentioned that it is one of great practical importance. Many people bleed locally, or even generally, when they hear an endocardial murmur arising in the course of rheumatic fever. In their eyes, the new disease is endocarditis; and everything ending in *itis* is thought, in at least a majority of instances, to be benefitted by bleeding. Therefore do not be in a hurry to call it endocarditis; and as for bleeding, all that I would venture to say (for of course the treatment of this physician's disease does not fall within my province) is to assure you of the pathological fact, that you may bleed a patient to death without altering (except probably to increase) the proportion of fibrin in his blood.—*London Journal of Medicine.*

Report on Sweating Sickness.—M. J. Guerin, in the name of a commission composed of MM. Dubois, Melier, Martin-Solon, Bricheteau, and and Guerin, read an elaborate report on a series of documents transmitted to the Academy respecting the epidemic sweating sickness of 1849. After some general observations upon epidemics, the reporters discussed the facts and inferences contained in these documents by propounding a series of questions.

1st. Does the *sweating sickness* of 1849 resemble preceding epidemics? After reviewing the history of this disease, from the scattered and imperfect notices thereof in the writings of Galen and of Cælius Aurelianus, down to the first unequivocal account of the disease in 1465, the reporters compare the English sweating sickness with the same malady as it appeared in Picardy in 1655, and then with the epidemic that has at different times made its appearance in various parts of France, and last in the year 1849. The result of this comparative examination is, that the epi-

demic of 1849 is but a milder form of the English sweating sickness of the middle ages, and is also identical with the several epidemics that have occurred in France since the year 1712.

2d. Has the epidemic of 1849 reappeared in districts that it had formerly visited? Has it spared some places in which it had previously occurred, and then after a time reappeared? On these points data are yet wanting.

3d. Has the epidemic of 1849 manifested characters similar to those of its predecessors? The answer to this question demands data whereon to determine whether, although fundamentally identical with preceding epidemics, this of 1849 has presented the same forms as those: whether, in the course of the disease, it has assumed different forms; whether it has presented the same form in the different provinces, or in different places of the same province; lastly, whether the same epidemic, during the same period, and in the same localities, has presented sufficiently distinct characters to have constituted distinct types. None of the reports that have been received furnish the necessary information upon these points, although up to a certain point they supply data. The results of treatment would in a great measure assist in the resolution of this question. Here, however, the diversity and even opposition of opinions leave the inference that nervous systems have predominated, and have varied with local or originating causes. The course of this epidemic, like that of cholera, was marked by a diminished severity in the attacks towards its decline; so that from being at first severe and fatal, they became slight and unattended with danger. The diversity of opinion on the subjects of infection and of treatment, and the varieties observed in the symptoms described, present the disease under different forms, but do not supply sufficiently accurate data for the determination of the distinctness of type in different localities.

4th. Have the reports now submitted to the commission added anything to the characteristics of the sweating sickness? In considering this point the reporters confine their observations principally to the subject of the mode of propagation of the malady. It does not appear that the documents hitherto received afford the determination of this point. Some observers affirm absolutely its contagiousness; others explicitly deny this property. One physician states that those only who had long resided in the district where the disease appeared were liable to its attacks; that strangers were exempt. This fact, the reporters observe, is analogous to what is recorded by historians of the disease in Calais, whither *it was imported by the English*, and where it was confined to the English inhabitants; whence its name of English sweating sickness.

5th. What is the nature of the epidemic of 1849? Some of the authors speak of a change in the nature of the disease: upon this the commissioners observe that the nature of the disease must remain unaltered, although its manifestations may be modified by circumstances. Opinions are divided into those which regard the disease as inflammatory, and those which regard it as a septic malady, involving at once the whole mass of circulating fluids. Of the six reports now under notice, not one

speaks of the disease as inflammatory (gastritis), but unanimously look upon it as septic.

6th. What treatment has prevailed in the epidemic of 1849, and what progress has the study of the therapeutic relations of the disease impressed upon its history? The treatment of sweating sickness is far from fixed; bleeding, antiperiodics, and evacuants, have all been used with varying success. Some have vaunted the success of depletion, while others have deplored the fatal effects of that measure; some have cured their patients with quinine, others by the employment of emetics. These opposing statements are only reconcilable by assuming variations in the period or characters of the epidemic. One report speaks of six hundred cases cured by bleeding; another records the cure of one thousand by emetics of ipecacuanha; a third gives uniform success to the combination of quinine with purgatives. The majority of cures have been obtained in various hands by emetics; but the commissioners observe that it cannot yet be asserted that ipecacuanha is the specific remedy for sweating sickness.—*London Medical Gazette.*

Tumour compressing the right side of the Medulla Oblongata and the nerves proceeding from it.—This case was related to the Society of Biology in Paris, on March 15th, by M. Charcot.

Case.—The patient, a woman aged 48, was admitted into the Charity Hospital on February 28. She had been ill three months; and at first was under the care of M. Gubler. He was called to her a fortnight after the appearance of violent pain in the occipito-temporal region. The neck was slightly tender on pressure; the organs of sense were very susceptible; and every movement of the body brought on attempts to vomit, sometimes followed by a discharge. The pupil was much contracted; and there was obstinate constipation; but no distension or tenderness of the abdomen. The tongue was rather white, but moist; the pulse was not frequent; the skin was not hot. There was no pain in the trunk or limbs, nor paralysis, vertigo, or convulsions. Mr. Gubler diagnosed a superficial circumscribed softening of the grey matter, or rather an intracranial tumour. He applied leeches behind each ear, gave a calomel purgative, and ordered chloroform to be applied locally to calm the cephalalgia. Considerable relief ensued: but the patient was removed by her son two days after. She soon began to manifest great hebetude, and weakness in all her limbs, without pain; and at last her speech became very remarkably impaired. The cephalalgia soon became as severe as before. A seton was applied to the neck, and blisters to the thighs, but without effect; and she was admitted into hospital.

On admission, she answered questions pretty readily, but soon shewed how much her intellect was weakened and perverted. She complained of very severe pains in the cerebellar region: the head was constantly turned towards the right shoulder, but there was no rigidity or contraction of the muscles of the neck. All her limbs were relaxed; but she moved her legs and arms without much difficulty, when desired to do so. When pinched, she felt it readily. There was no strabismus,

ptosis, or deafness. The pupils were equally dilated. She had never vertigo, muscæ volitantes, or noises in the ears. There were no signs of paralysis of the facial nerve. She protruded her tongue readily; but the point was immediately carried to the right. She could, however, easily turn it in her mouth, and could turn the point to the left when desired to do so. The movements of deglutition were perfect. The vomiting and constipation continued as long as the patient was in the hospital. A kind of coma supervened, and the patient died on March 9th: she never had convulsions.

From the symptoms it seemed probable that there was a tumor compressing the ninth nerve; but there were no symptoms of syphilis, tubercles or cancer. On post-mortem examination, a tumor, of the size and shape of a large pigeon's egg, was found on the front of the right lobe of the cerebellum, where it had formed a hollow. It also compressed the right peduncle of the brain, and pushed the medulla oblongata towards the left side. It had flattened the auditory, facial, pneumogastric, glosso-pharyngeal, and especially the hypoglossal nerves on the right side. The fifth pair was also much flattened. The third and sixth nerves were untouched. The tumor was very feebly adherent, and was easily removed by tearing some very loose cellular tissue. It was hard and dry, and grated under the scalpel: it was somewhat mammillated. Examined with the microscope, it presented fibro-plastic tissue, with a predominance of the fibrous tissue.—*Lond. Journ. of Med.*

ANATOMY AND PHYSIOLOGY.

On the Reunion of Wounds of the Spinal Cord, with Restoration of its lost Functions. By M. Brown-Sequard.—During the last three years, M. Brown-Sequard has made a considerable number of experiments, with a view of determining the degree of reparative power which exists in the Spinal Cord; the results of which are very remarkable. The following is one of the most striking:—The spinal cord of a Pigeon was *entirely divided* between the 5th and 6th dorsal vertebræ; and the operation was followed by complete paralysis of the posterior part of the body, as regarded sensibility and voluntary movement. At the end of three months, voluntary movements began to show themselves, in the midst of reflex actions; and sensibility also reappeared. These powers gradually augmented; and six months after the operation, the bird could stand for some minutes, but fell if it attempted to walk. In the course of the seventh month it began to walk, but unsteadily, helping itself by its wings. By the end of the eighth month, it could walk slowly without support; but if it attempted to walk fast, it fell over, unless it supported itself by its wings. Twelve months after the operation, it could run; and when the account of the case was drawn up, fifteen months after the section had been made, its progression seemed in all respects normal, save that a certain degree of stiffness remained in its gait.

In several Guinea-pigs, in which the section had only been made through one half of the spinal cord, an incomplete return of voluntary power was observed within seven or eight months after the operation. In the case of one Guinea-pig, which had been subjected to this operation a year before, and in which sensibility appeared to have been completely restored, and voluntary movement less completely, a careful examination was made of the injured part. It was found that the section had traversed both the posterior columns, as well as the anterior and lateral columns, and a portion of the grey substance on the right side; all of which parts exhibited a sort of contraction, the continuity of the divided parts being re-established by a whitish cicatrix. On examining the substance of this cicatrix, it was found to be in great part made up of fibres of areolar tissue, the direction of which was transverse or oblique; but these were crossed by great numbers of nerve-fibres running in a longitudinal direction, which exhibited a double contour, and were uninterruptedly continuous through the whole extent of the cicatrix. Among these were scattered some ganglionic corpuscles. A like reproduction of nerve-fibres in the cicatrix of the spinal cord, has been substantiated by M. Brown-Sequard in two other cases.—*Brit. and For. Review, Oct.* 1851, *from Gazette Médicale.*

On the Distribution of the Blood-vessels in the Mucous Membrane of the Stomach. By Henry Frey.—The distribution of the blood-vessels in the gastric mucous membrane has an interesting relation to its double function; for the vessels of the surface, which are those most concerned in absorption, are veins, and have a large diameter; whilst those of the deeper portions of the membrane, which are subservient to secretion, are arteries, which form very delicate net-works around the gastric follicles.—*Ibid, from Henle and Pfeufer's Zeitschrift.*

On the Post-mortem Duration of the Ciliary Movements in the Human Subject. By M. Gosselin.—The body of a decapitated criminal having been conveyed to the Ecole Pratique, the ciliary movement was recognized on the mucous membrane of the trachea, of the nasal fossæ, and on that lining the maxillary, frontal, and sphenoidal sinuses, eight hours after death. The movements were still distinguishable, especially on the mucous membrane of the trachea, 32 hours after death. The movement had ceased on the mucous membrane of the nasal fossæ and of the sinuses, 56 hours after death; but this was perhaps due to the free exposure of these parts to the air; for the vibration was still active on the mucous membrane of the trachea, where it was distinctly seen to the 168th hour after death, after which putrefaction came on, and the movement ceased. In another case of the same nature, the ciliary movements were much less durable; and this seemed to be consequent upon the earlier supervention of putrefaction, brought about by a higher temperature, the thermometer having ranged from 46° to 54° in the first and having risen to 68° in the second.—*Ibid, from Gazette Médicale.*

The Physiological Effects of Ascending to great Heights.—M. Payerne, of Cherbourgh, communicated observations which tended to prove that the feelings of lassitude and dyspnœa, which are experienced on ascending high mountains, are not attributable to an excess of oxygen in the air inspired as some physiologists have thought. M. Payerne has observed precisely the same effects produced under circumstances diametrically opposite; *i. e.* in descending under the water to the depth of forty-one metres (=44·838 yards.) M. Payerne stated that he had effected the descent by three different means, viz. by the ordinary diving-bell, by a diving bell that he had himself contrived, and in his sub-marine ship. In these several apparatus the auditory nerve had been differently affected. The first caused a disagreeable, almost painful, sensation during the period of submersion; the second produced similar effects only in descending or ascending; and the third, during the time requisite to establish the equilibrium with the medium in which he was thus placed. Under other points of view, the consequences were identical.

The author thus stated the results:—At thirty metres (=32·808 yds.) of depth of water, provided the temperature of the atmosphere respired did not exceed 10° Cent. (=50° Fahr.,) and at even less than this depth, with a higher temperature of the air, the workmen are obliged to rest from their work more frequently than when in the open air; and their arterial pulsations are notably increased. The descent and continuance under water do not give rise to hæmorrhages, but the returning to the surface in diving-bells, and the escape of the compressed air from the sub-marine boat on opening its doors to return to the ordinary atmosphere, have been known to be followed by epistaxis in some persons. In these cases, however, the hæmorrhage was not of the usual character, *i. e.* consisting of drops of blood of a more or less florid color, but it was a mere oozing of a saffron-colored fluid, thinner than blood,—a simple exudation, without rupture of the capilliaries. It could not be supposed that these effects were attributable to an insufficiency of oxygen, since a volume of air is condensed in proportion to the pressure to which it is subjected. At the greatest heights that have yet been reached, the air has still its relative proportion of oxygen.

M. Payerne added, that at small depths, *e. g.* a metre, a cubic metre of air will suffice for the respiration of four men, and it has even sufficed for five men, during one hour, and oxygen still remained.

The lassitude and dyspnœa which are experienced at great heights, are owing, according to M. Payerne, to a disturbance of the equilibrium between the tension of the fluids contained in our organs, and that of the circumambient atmosphere.—*Lon. Med. Gaz.*